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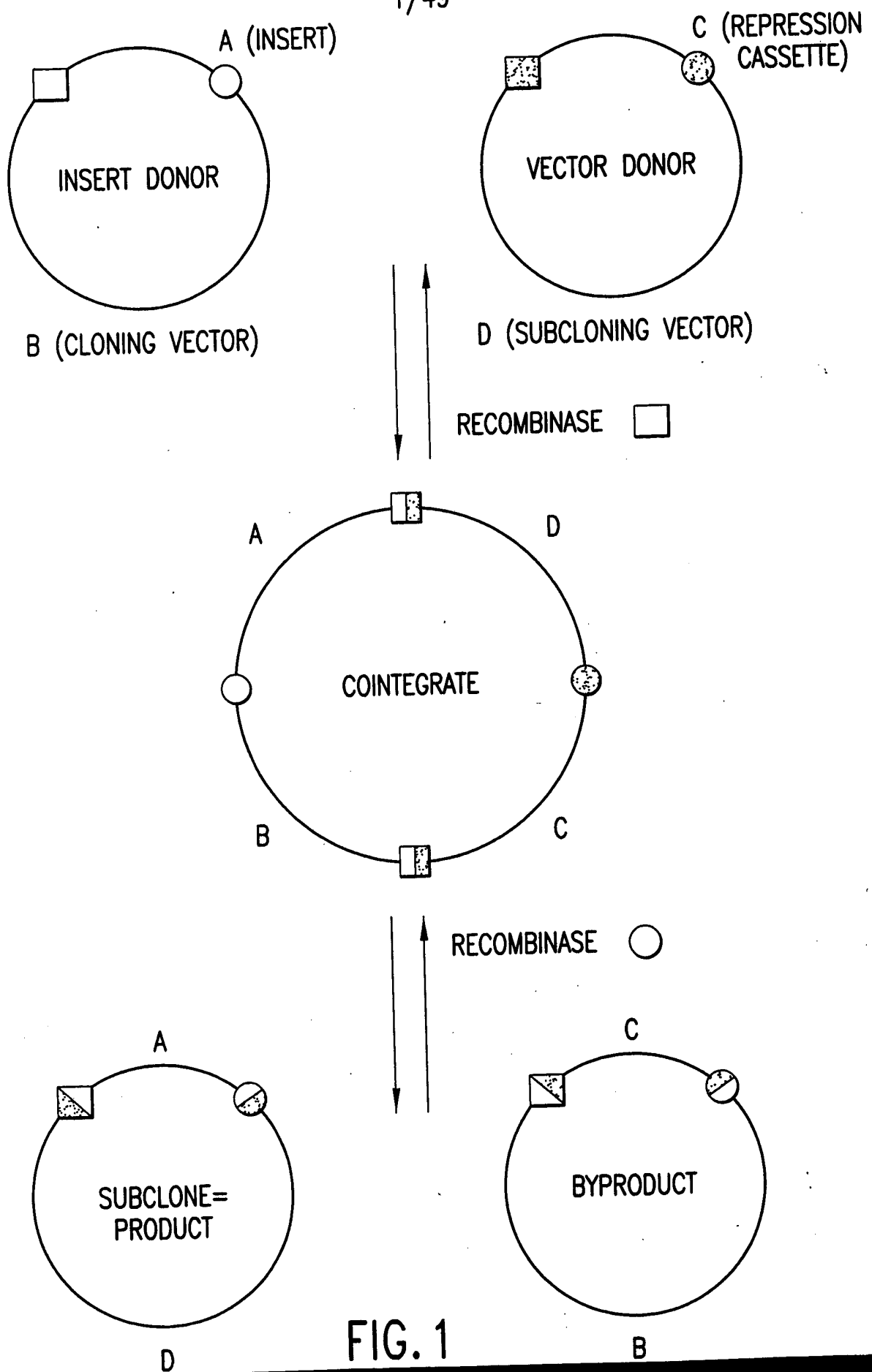


FIG. 1

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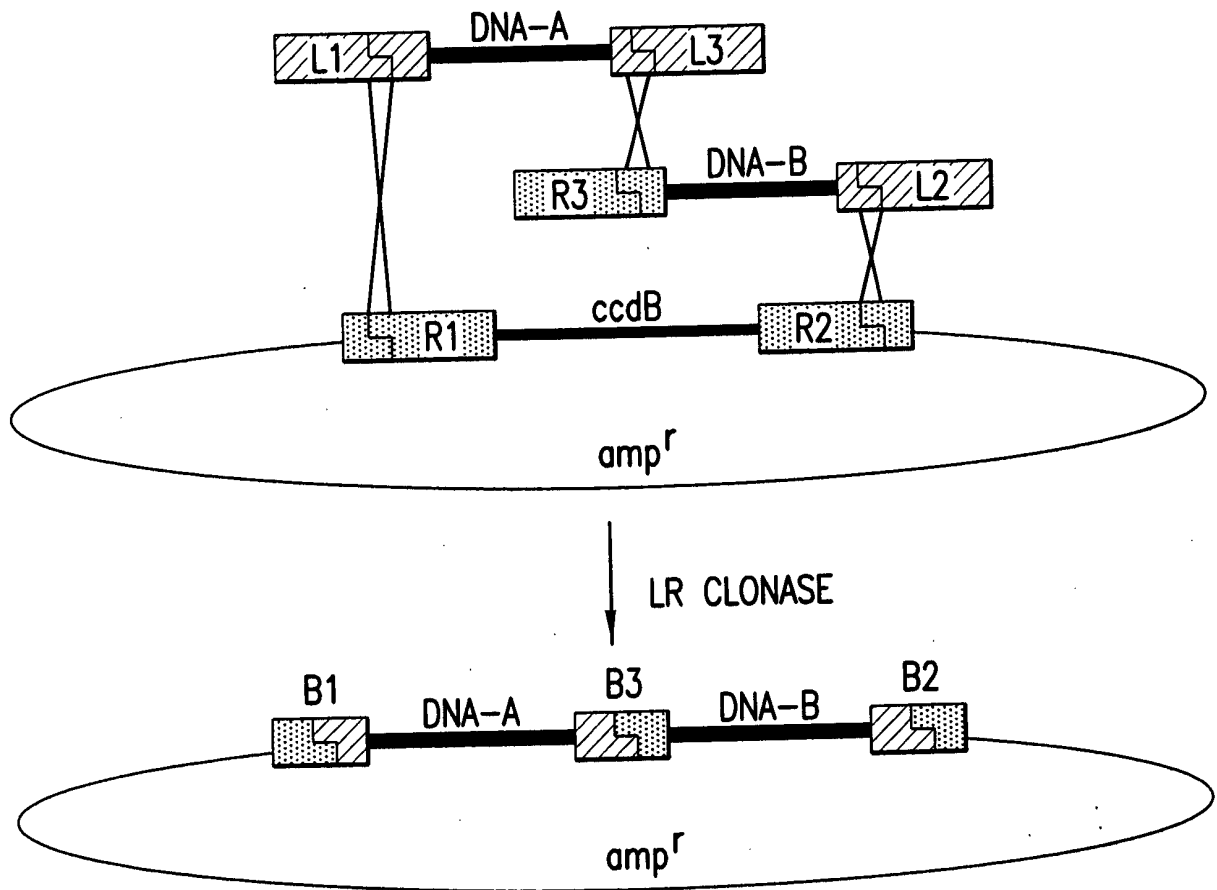


FIG. 2

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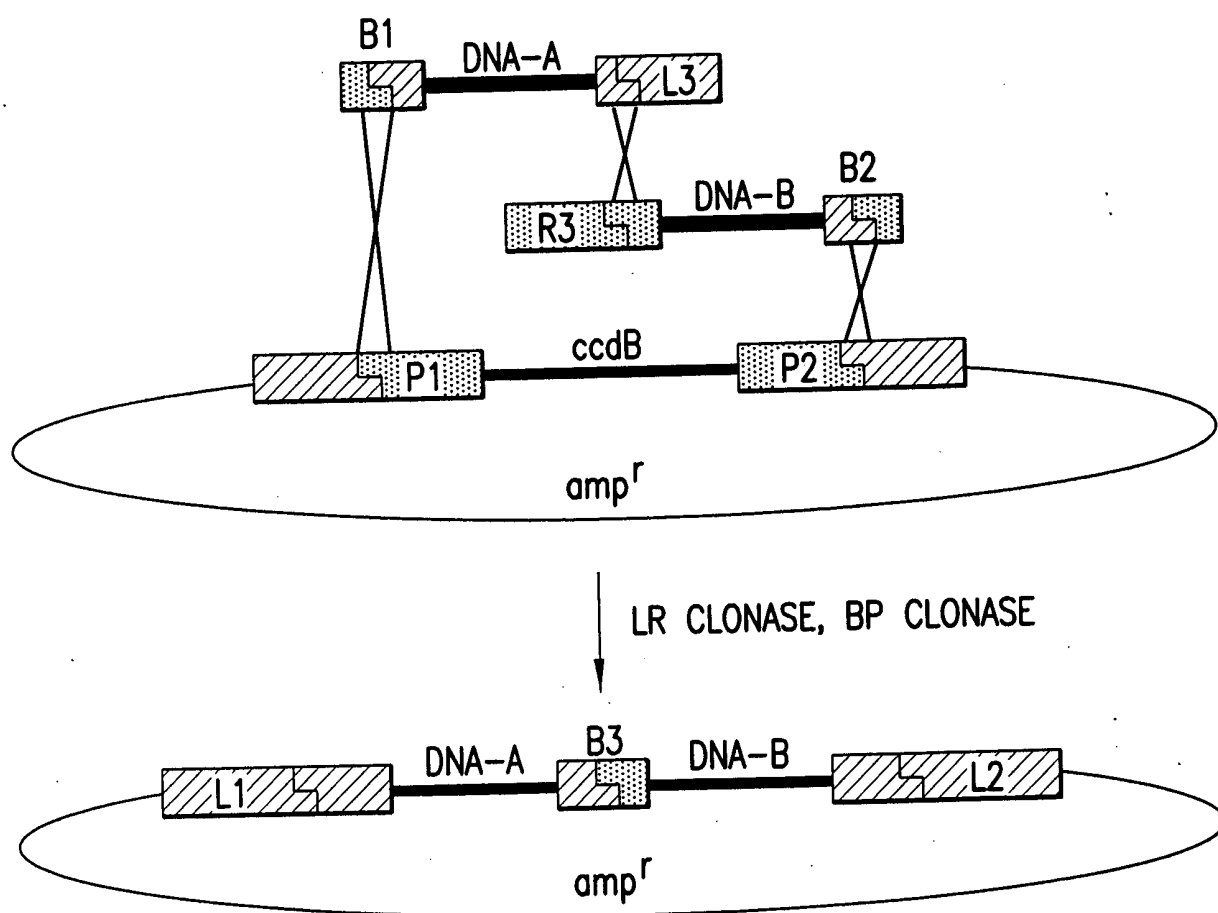


FIG. 3

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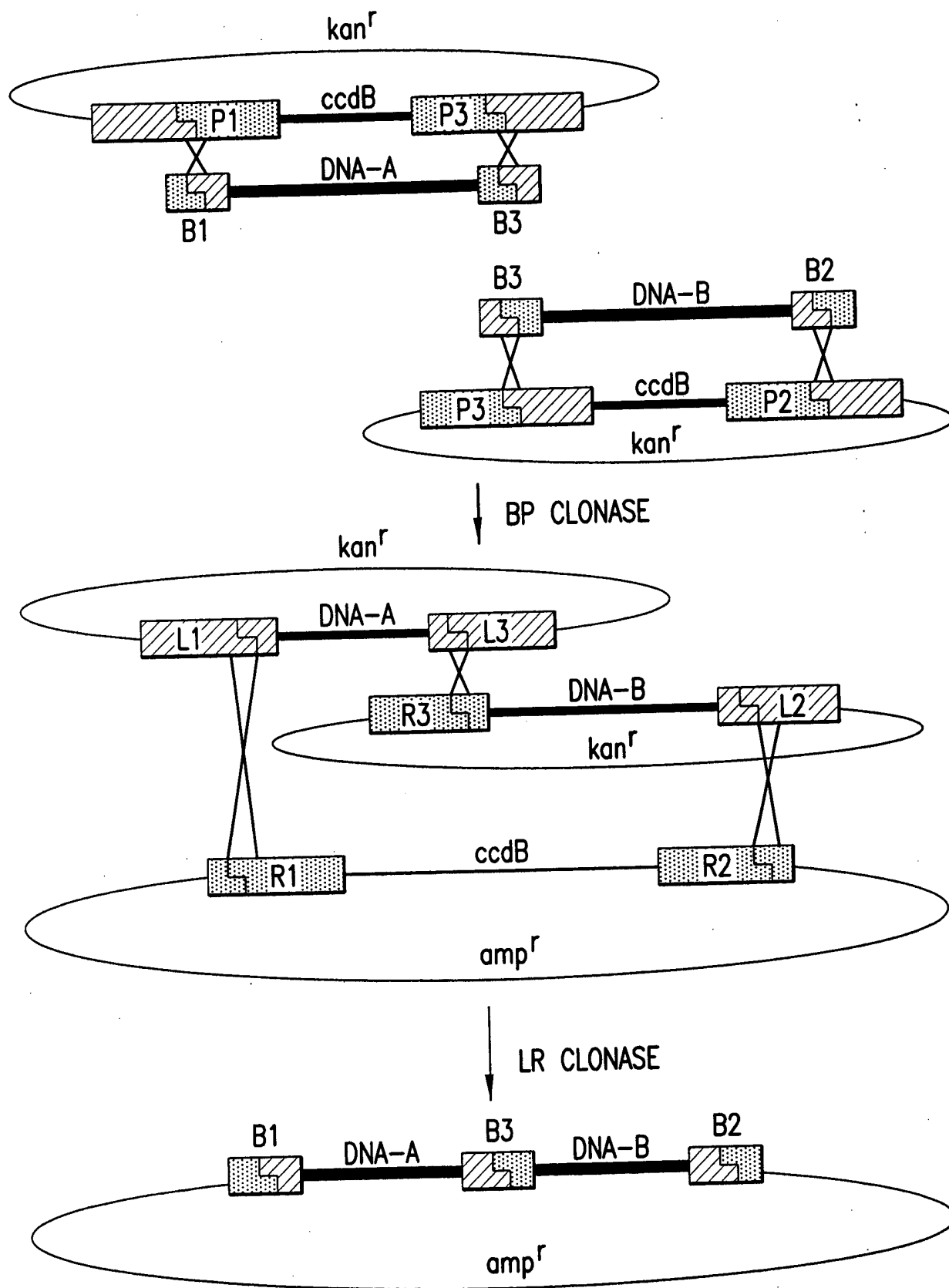


FIG. 4

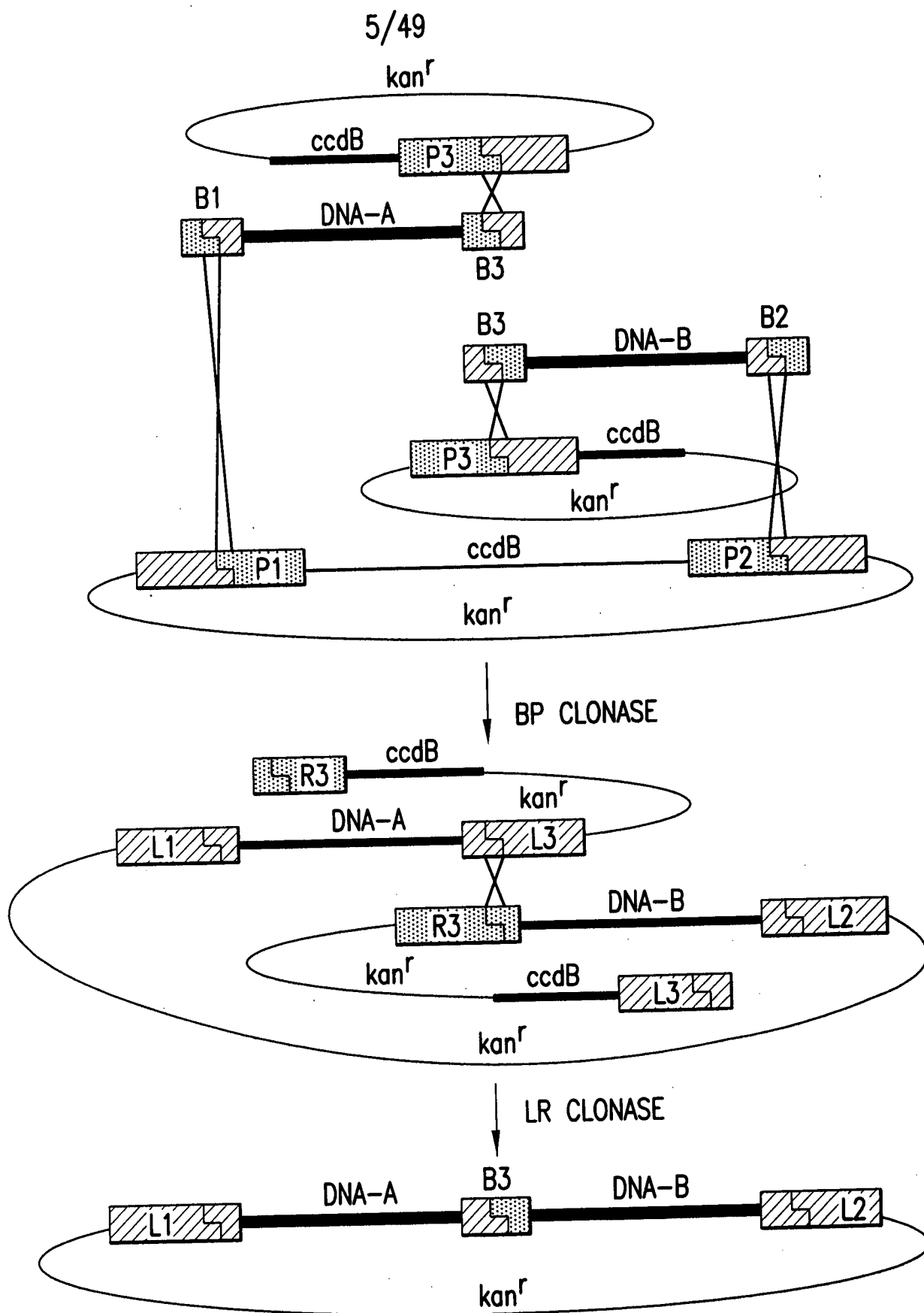


FIG. 5

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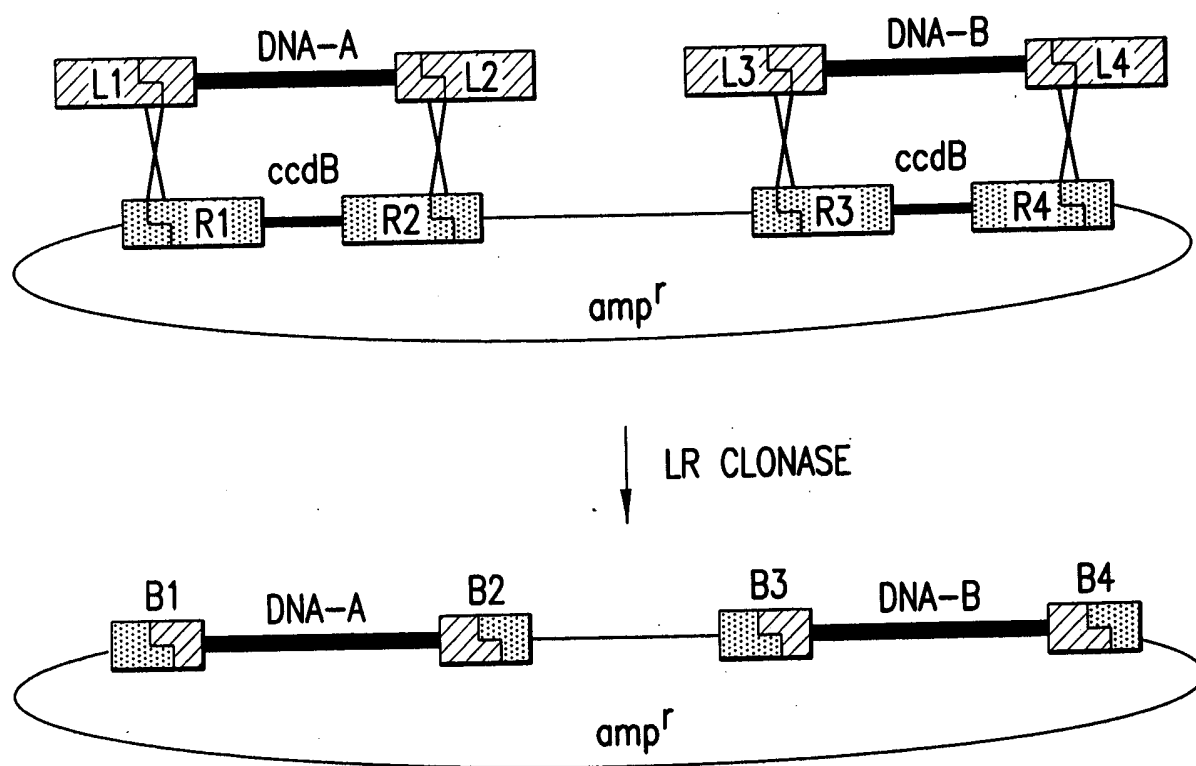


FIG. 6

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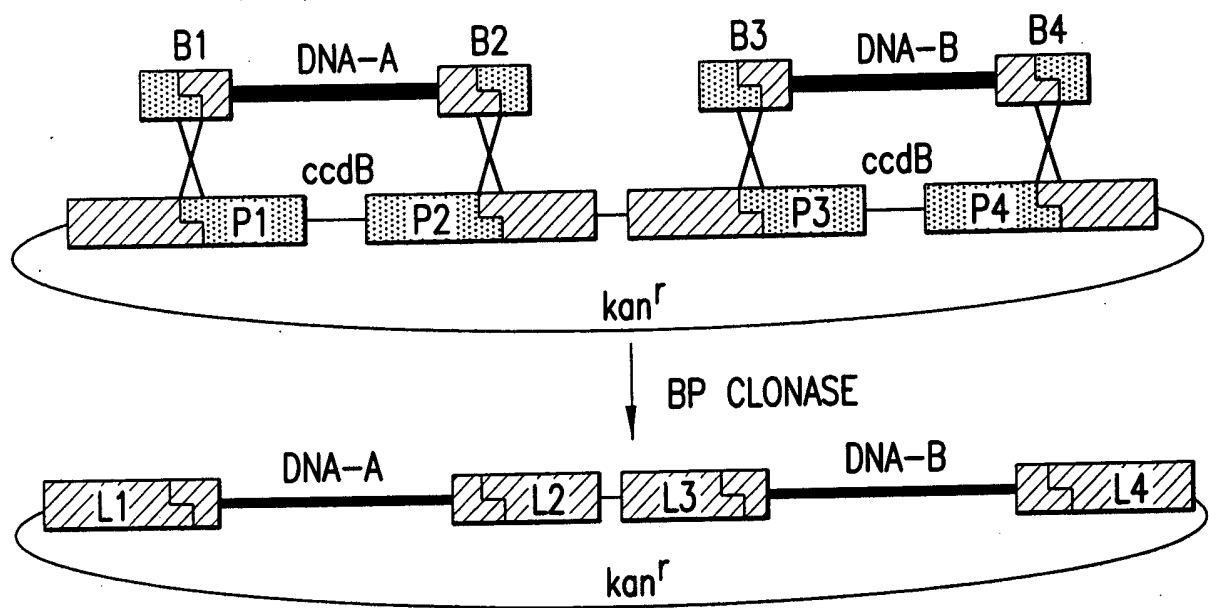


FIG. 7

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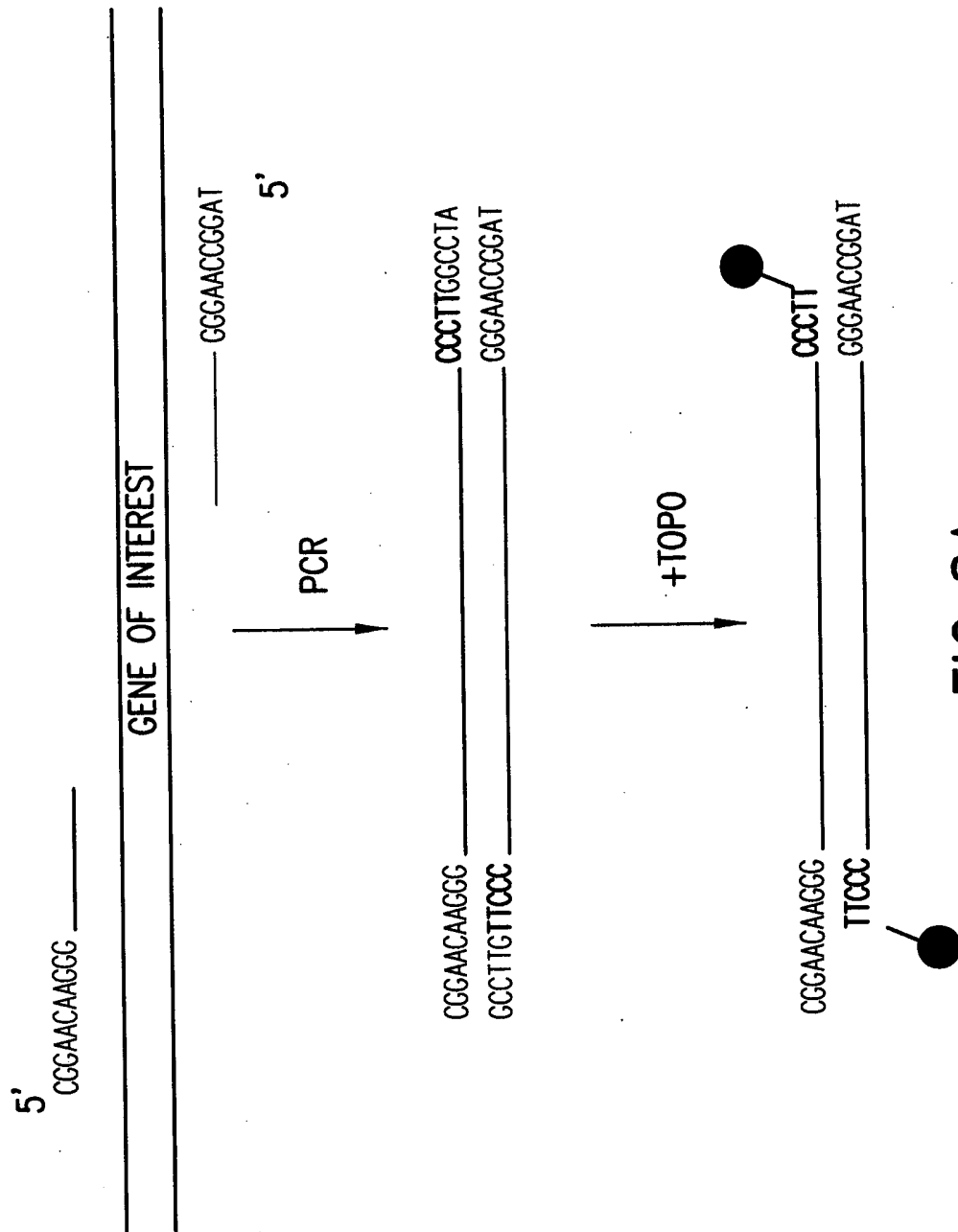


FIG. 8A

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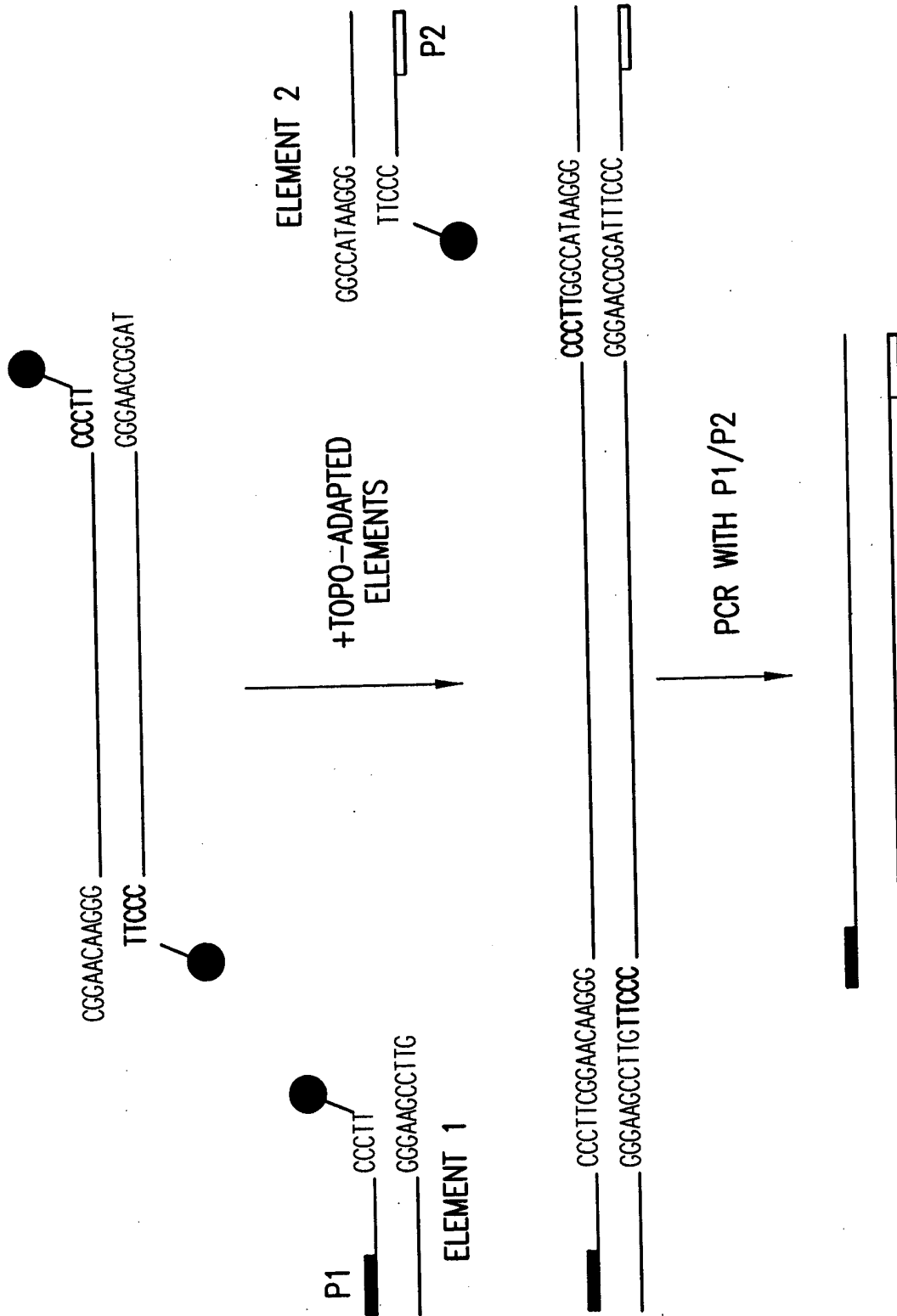


FIG. 8B

(32) $\frac{F722}{GCGCAGCG}$ $\frac{F6948}{TTCC}$

(30) F720
TCGAAGCG — CCCTT
TTCCC — CGGAACCGG (31)

A.: F6945 CCCTT
F7221 GGGAAGCT (29)

(36) $\frac{F722}{GCCCAGG}$ $\frac{F6948}{TCCC}$

(34) F8418
CGGAACAAGG—CCCTT
TTCC—GGGAACGG (35)
F6682

B. F6945 ———— CCCTT
F8417 ———— CCGAAGCCTTG
(33)

(40) F8419
GGCCTAAAGG
TCCC F6948

(38) F8418
CGGAACAAGG—CCCTT
TTCCC—GGGAACCGGAT
F8420 (39)

C. F6945 CCCTT
F8417 GGGAAGCCTTG
(37)

FIG. 9A

FIG. 9B

FIG. 9C

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TABLE 1

Primer name	F#	Sequence (5' → 3')	SEQ ID NO:
MTH1	10779	TATGTATCATACACATACGATTTAGGT	1
MTH2	10780	ACCGCCTCTCCCGCGCGTT	2
GAL4r2	12667	GTTCCGAAGGGGGCGATACAGTCAACTGTCTTTG	3
MTH5	12505	TTGGCCAAGGGTATCTAGAAGCTTCTGCAGACGCGT	4
VP16r2	12668	GTTCCGAAGGGCCACCGTACTCGTCAATTCCAAG	5
SV40pAf	12016	GGCCAAAAGGGAAGTTGTTTATTGCAGCTTATAATG	6
SV40pAr	561	CTCTGACTTGAGCGTCGATTTT	7
p53f2	12669	CGGAACAAGGGGAATTCCTGTCACCGAGACC	8
SVTf2	12670	CGGAACAAGGGGAATTCCTGGGATCTGGAATTC	9
CMVr2	7221	TCGAAAGGGTCGAGGTGACCTGCAGCTG	10
CMVf	6945	AATTCACATTGATTATTGAGTAGTTA	11
GFP-Xhof	7220	TCGAAAGGGTAATGGCCAGCAAAGGAGAAG	12
GFP-Notr	6682	GGCCAAGGGTTTGTAGAGCTCATCCAT	13
BGHf2	7222	GGCCAAGGGTCTGAATGGGCCGCATAGT	14
BGHr	6948	AAGCCATAGAGCCCGGGCCA	15
CMVr3	8417	GTTCCGAAGGGTCGAGGTGACCTGCAGCTG	16
GFPf3	8418	CGGAACAAGGGATGGCCAGCAAAGGAGAAG	17
GFPPr3	8420	TAGGCCAAGGGTTTGTAGAGCTCATCCATGC	18
BGHf3	8419	GGCCTAAAGGGTGAATGGGCCGCATAGT	19
T7top	9304	GAAGGAGTAATACGACTCACTATAGGGAGCCACCATGGGCCCTTCGGAAC	20
T7bottom	9305	GTTCCGAAGGGCCCATGGTGGCTCCCTATAGTGAGTCGTATTACTCCTTC	21
T7amp	9306	GAAGGAGTAATACGACTCACT	22
T3top	9661	GGCCTAAAGGGTCCCTTTAGTGAGGGTTAATTGCGCGC	23
T3bottom	9662	GCGCGCAATTAACCTCACTAAAGGGACCCTTTAGGCC	24
lacZf2	10632	CGGAACAAGGGATGATAGATCCGTCGTTTTACA	25
lacZ1k2	10770	TAGGCCAAGGGGACCATTTTCAATCCGCACCT	26
lacZ2k2	10771	TAGGCCAAGGGGAGGCACTTCACCGCTTGCCA	27
lacZ3k2	10772	TAGGCCAAGGGTTTGACACCAGACCAACTGGTA	28

FIG. 9D

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FIG. 10A

SAMPLE #	GAL4+pA	VP16+pA	pGene/lacZ	GAL4+p53+pA	VP16+T+pA	p53-VP16
1			0.26 μ g	p0.37 μ g	p0.37 μ g	
2			0.4 μ g	p0.3 μ g	p0.3 μ g	
3			0.4 μ g			p0.6 μ g
4			0.4 μ g	10.3 μ g	10.3 μ g	
5		10.3 μ g	0.4 μ g	10.3 μ g		
6	10.3 μ g		0.4 μ g		10.3 μ g	
7			0.4 μ g	4.5 μ l PCR	4.5 μ l PCR	
8		4.5 μ l PCR	0.4 μ g	4.5 μ l PCR		
9	4.5 μ l PCR		0.4 μ g		4.5 μ l PCR	

MAMMALIAN TWO-HYBRID

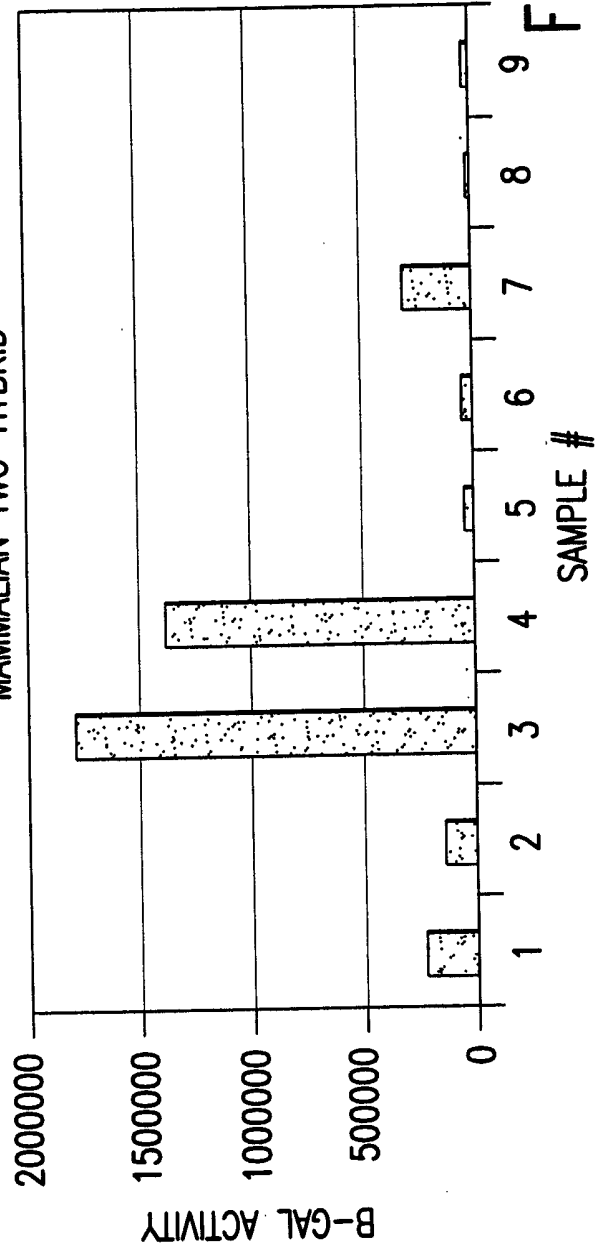


FIG. 10B

SAMPLE #	LacZ activity
1	240000
2	140000
3	1800000
4	1400000
5	54000
6	80000
7	320000
8	12000
9	42000

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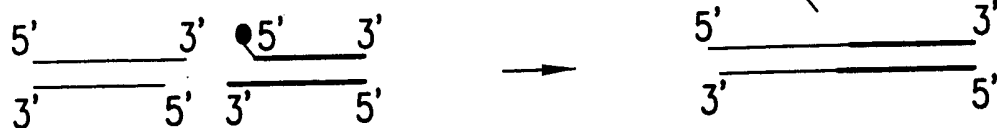


FIG. 11A

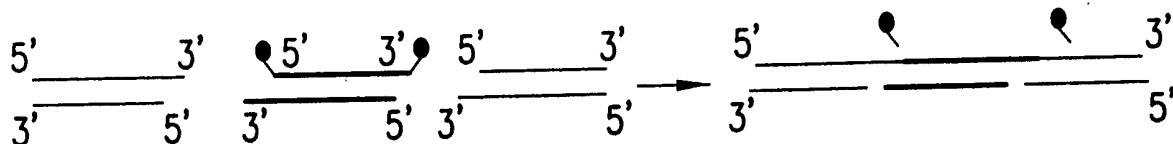


FIG. 11B

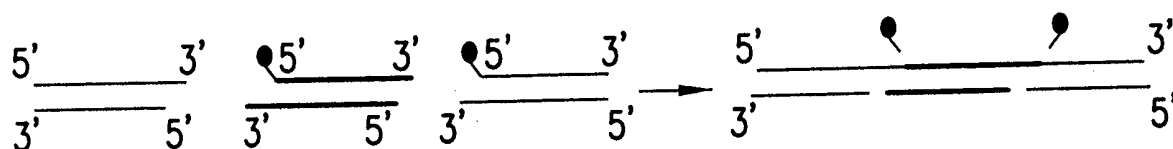


FIG. 11C

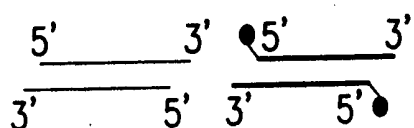


FIG. 11D

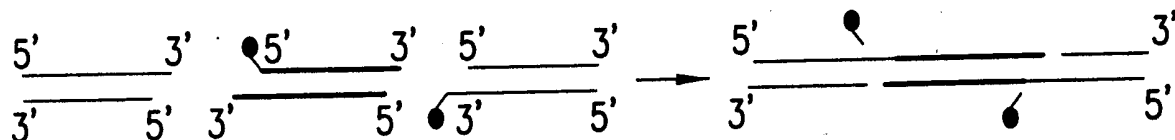
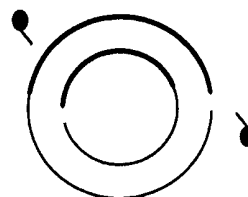


FIG. 11E

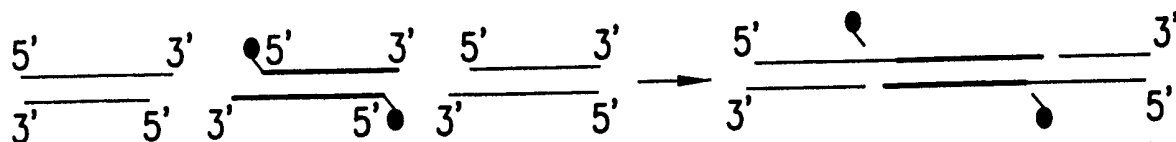


FIG. 11F

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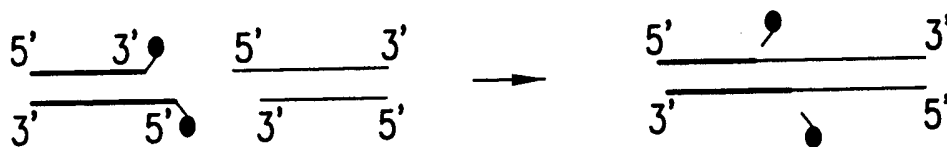


FIG. 12A

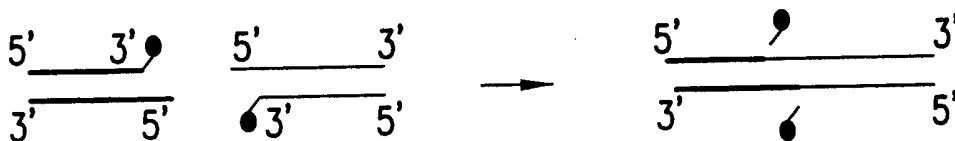


FIG. 12B

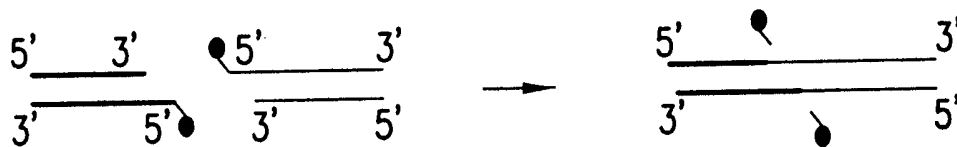


FIG. 12C

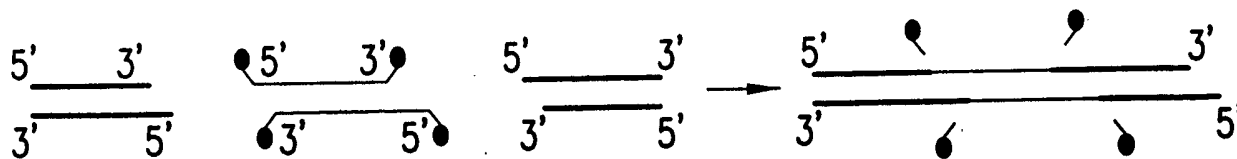


FIG. 12D

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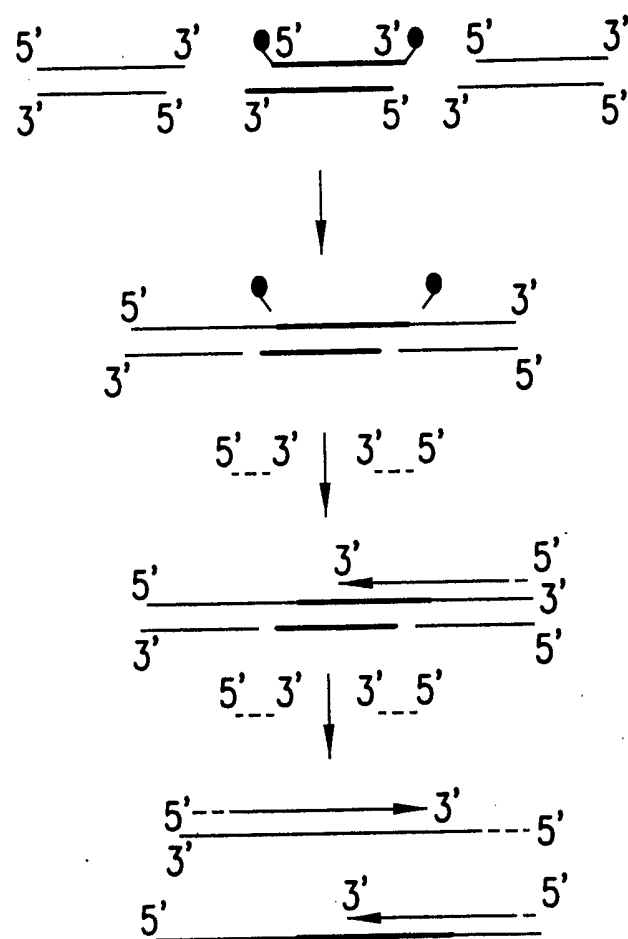


FIG. 13

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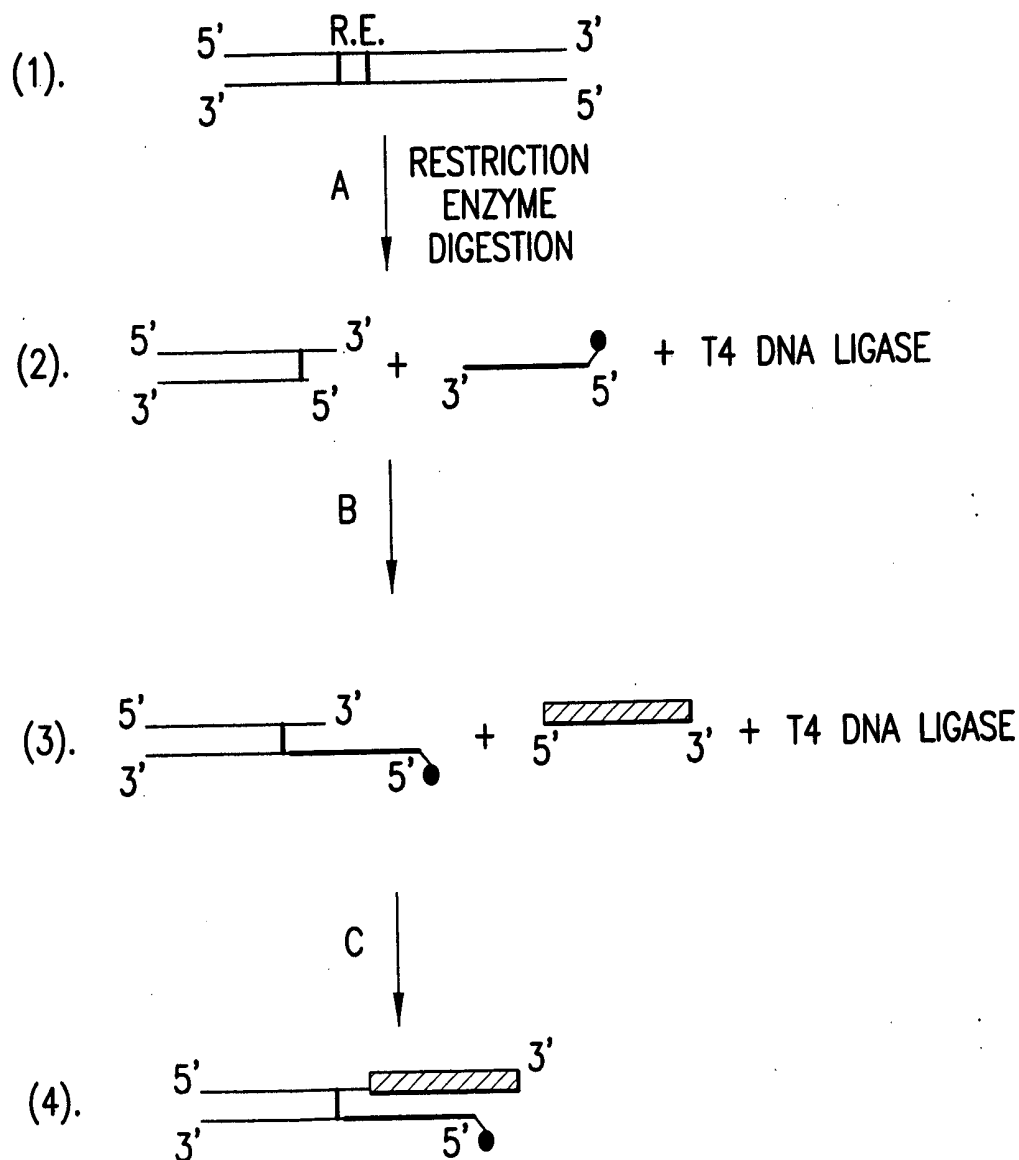


FIG. 14

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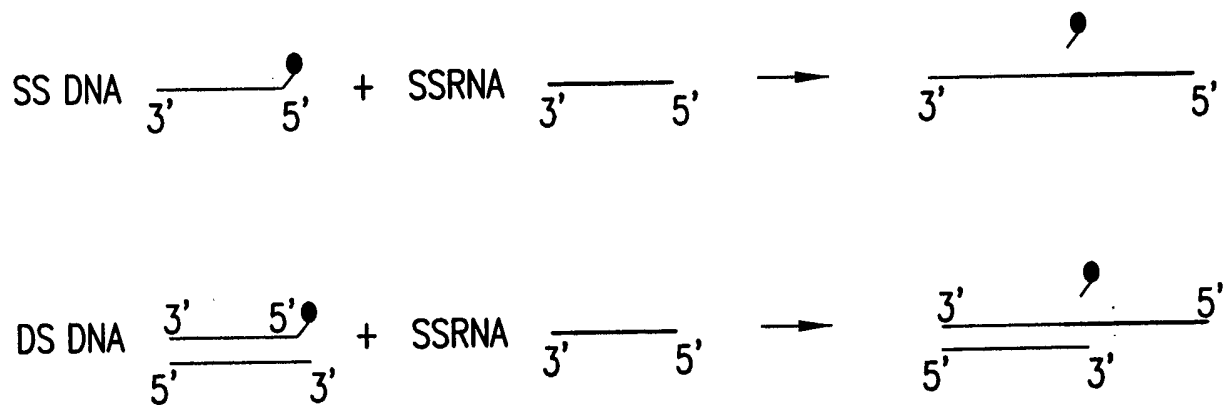


FIG. 15

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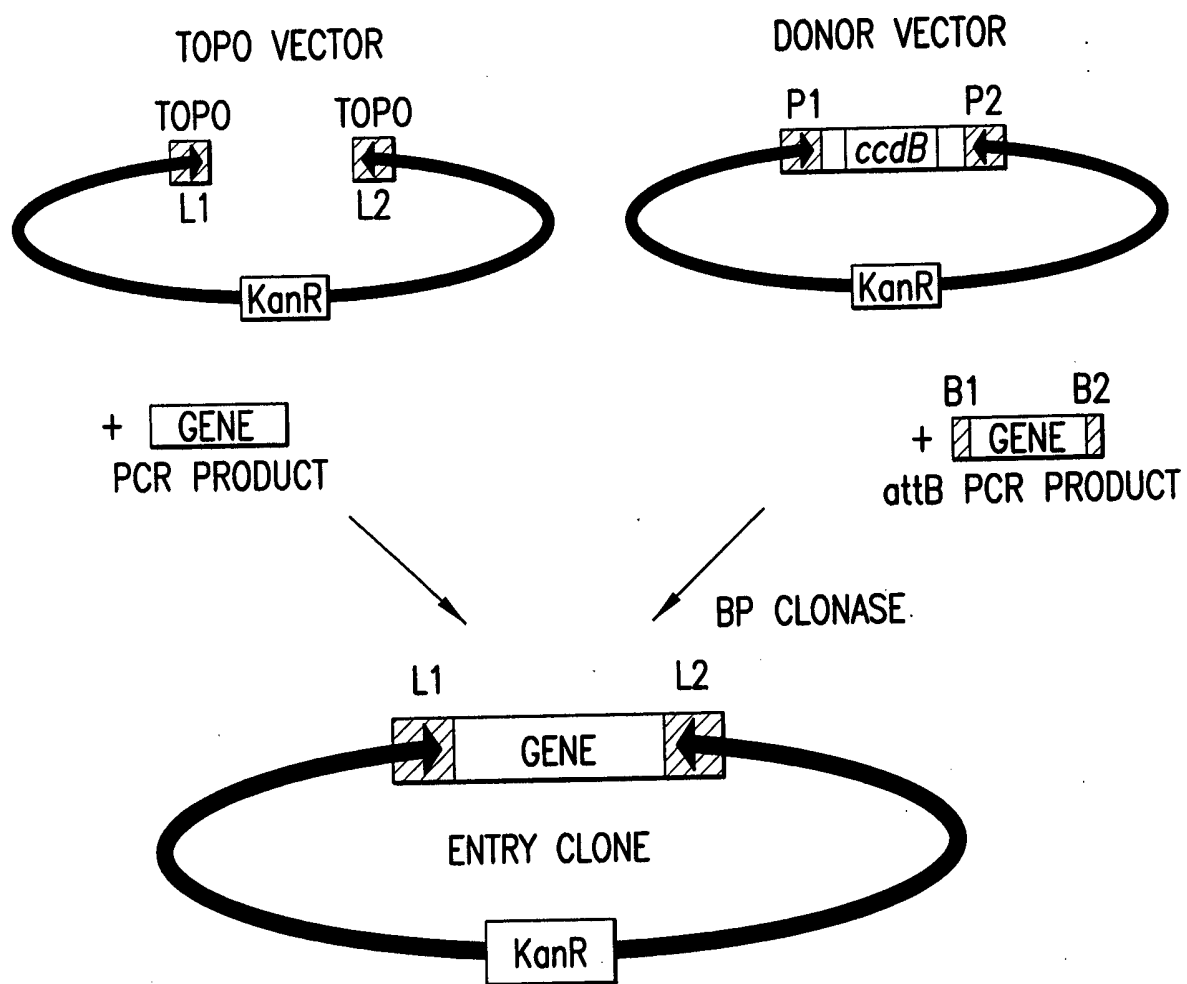


FIG. 16

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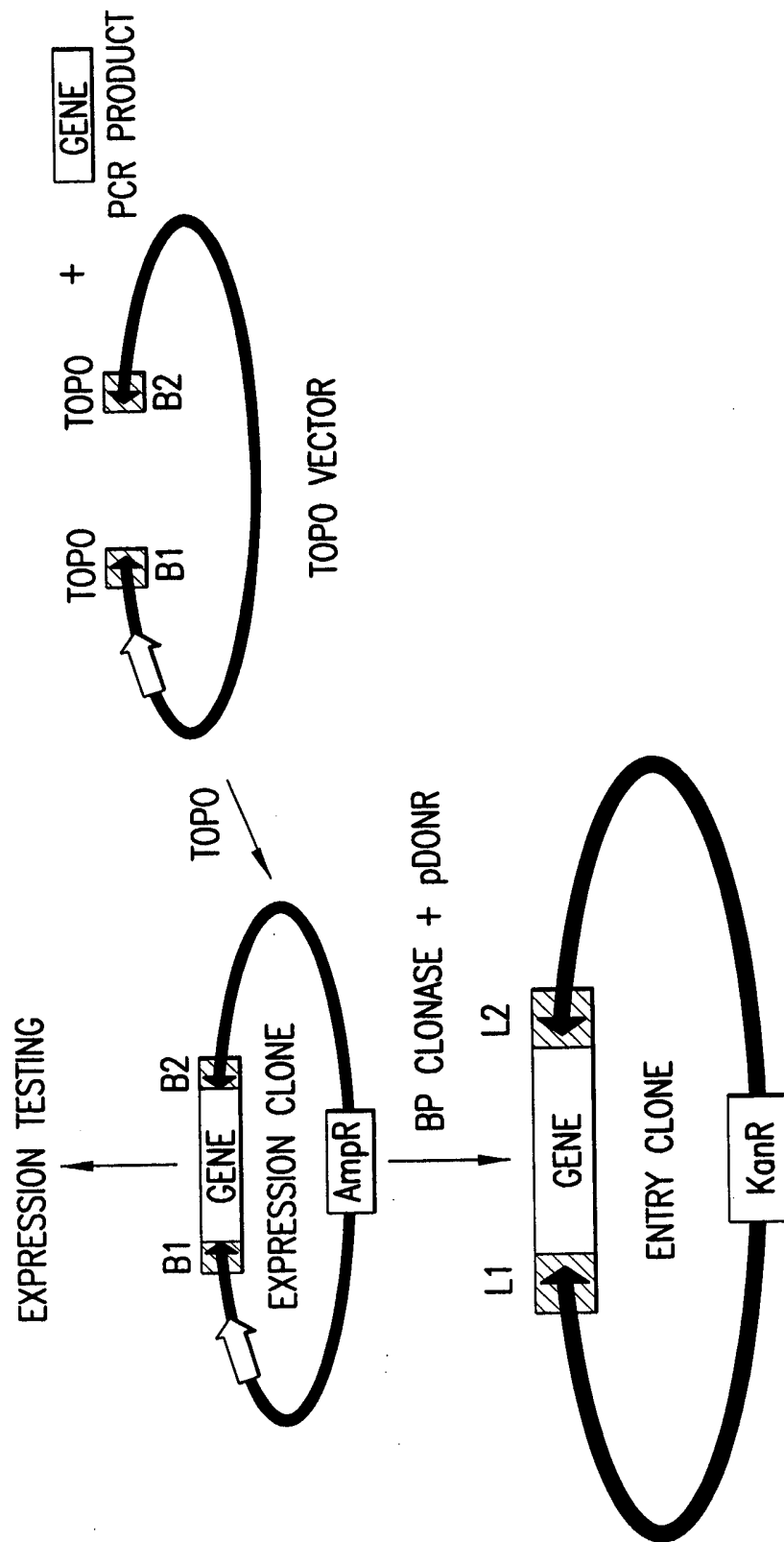


FIG. 17

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MCS FOR pcDNAGW-DT(sc) AND pENTR-DT(sc)



L	Y	K	K	A	G	S	A	A	A	G	R	A	D	P	A	F	L	Y	K	V					
...	TTG	TAC	AAA	AAA	GCA	GGC	TCC	GCG	GCC	GCC	GTA	CTC	GAG	AAA	GCG	GCG	GCC	GAC	CCA	GCT	TTC	TTG	TAC	AAA	GTG
	<i>BsrG I</i>				<i>Not I</i>				<i>Xho I</i>				<i>Asc I</i>				<i>BsrG I</i>								
																									
AttL1/B1										AttL2/B2															

FIG. 18

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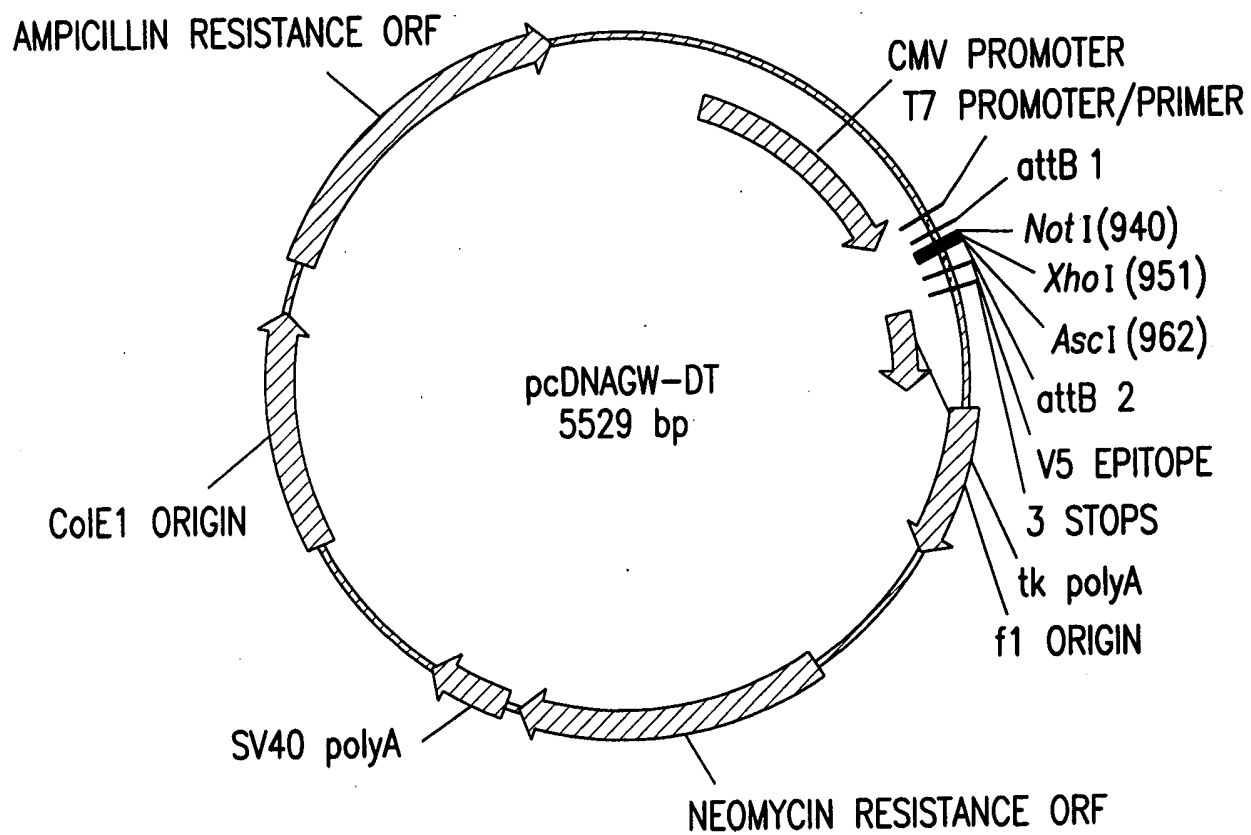


FIG. 19

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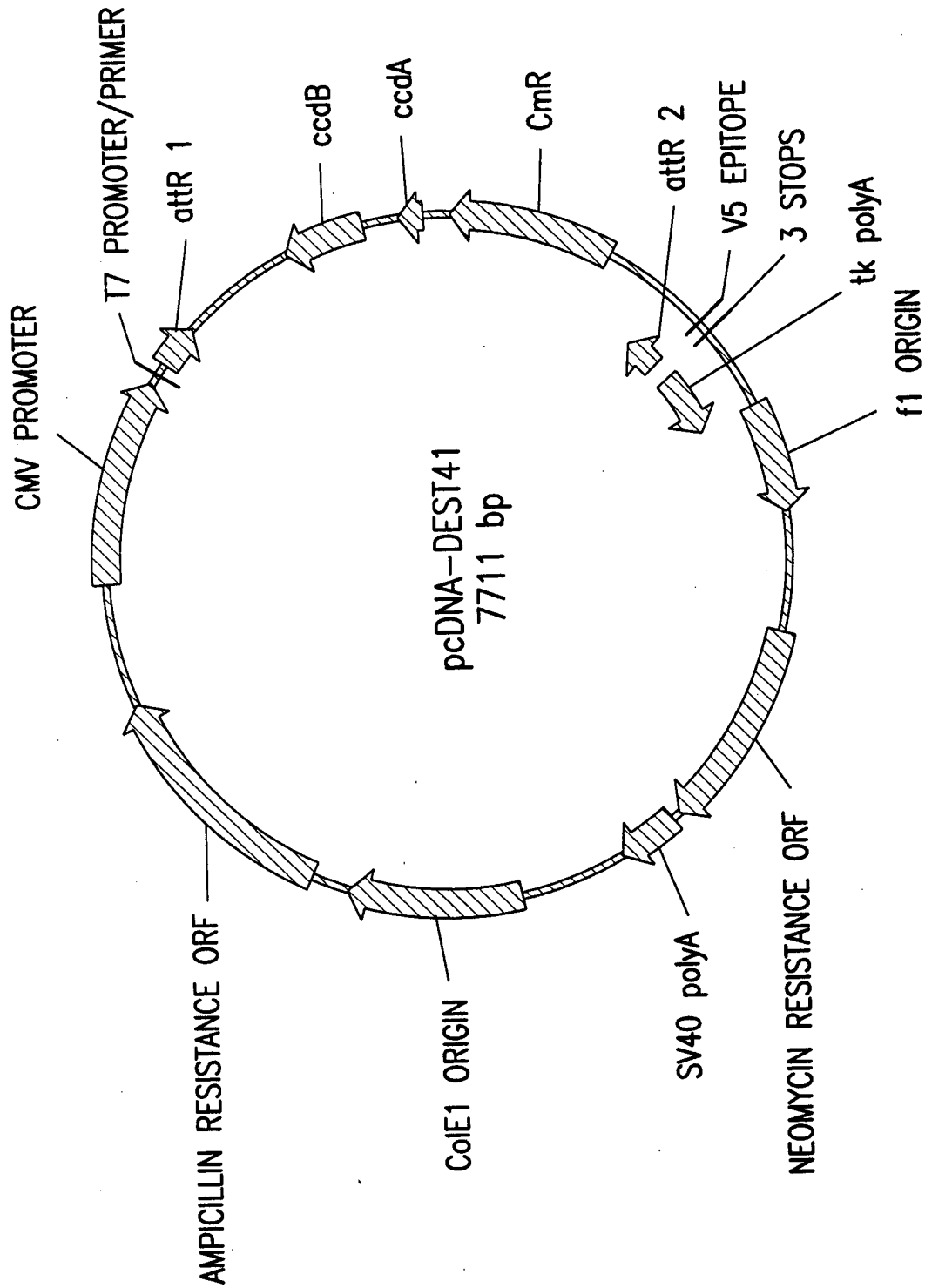


FIG. 20

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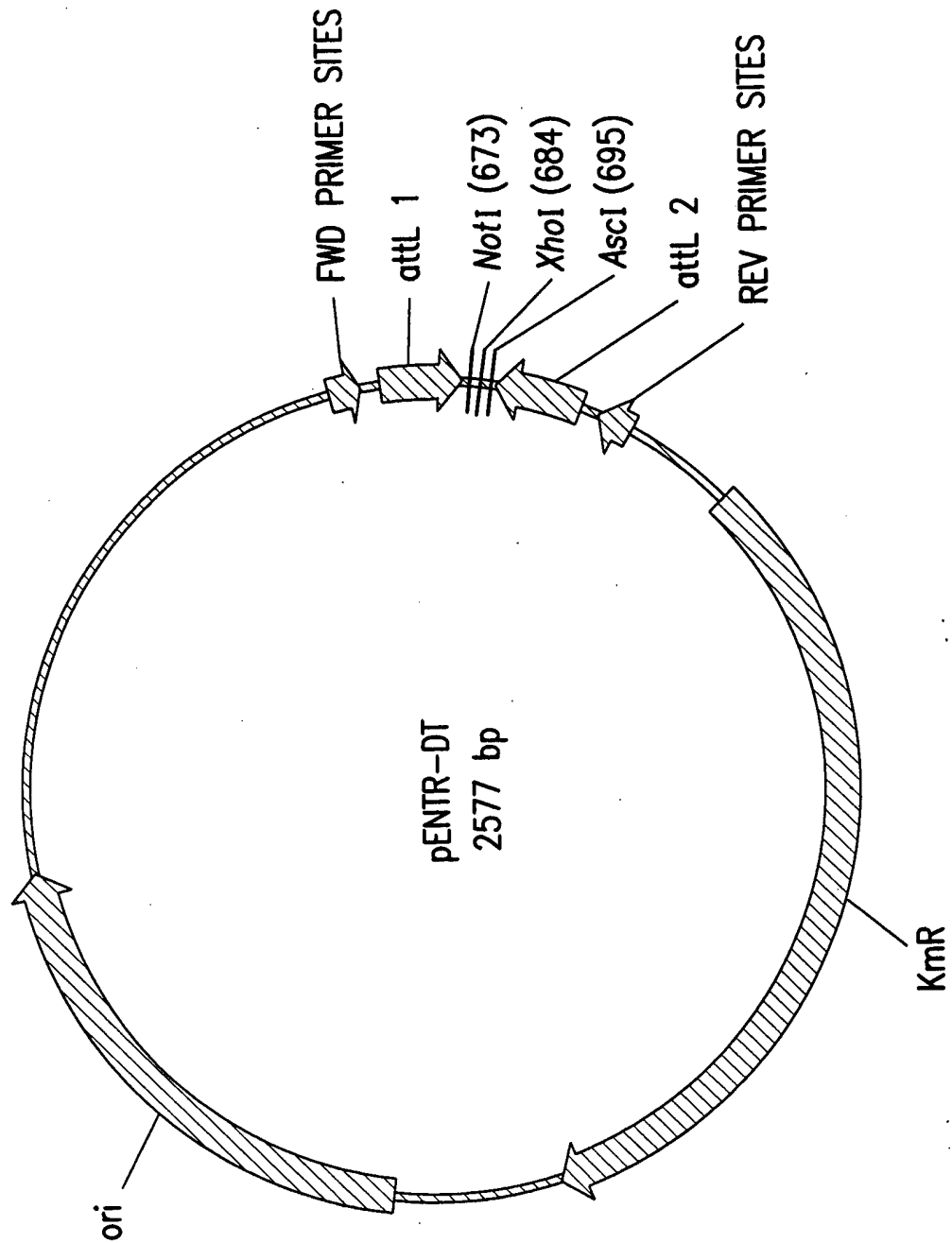


FIG. 21

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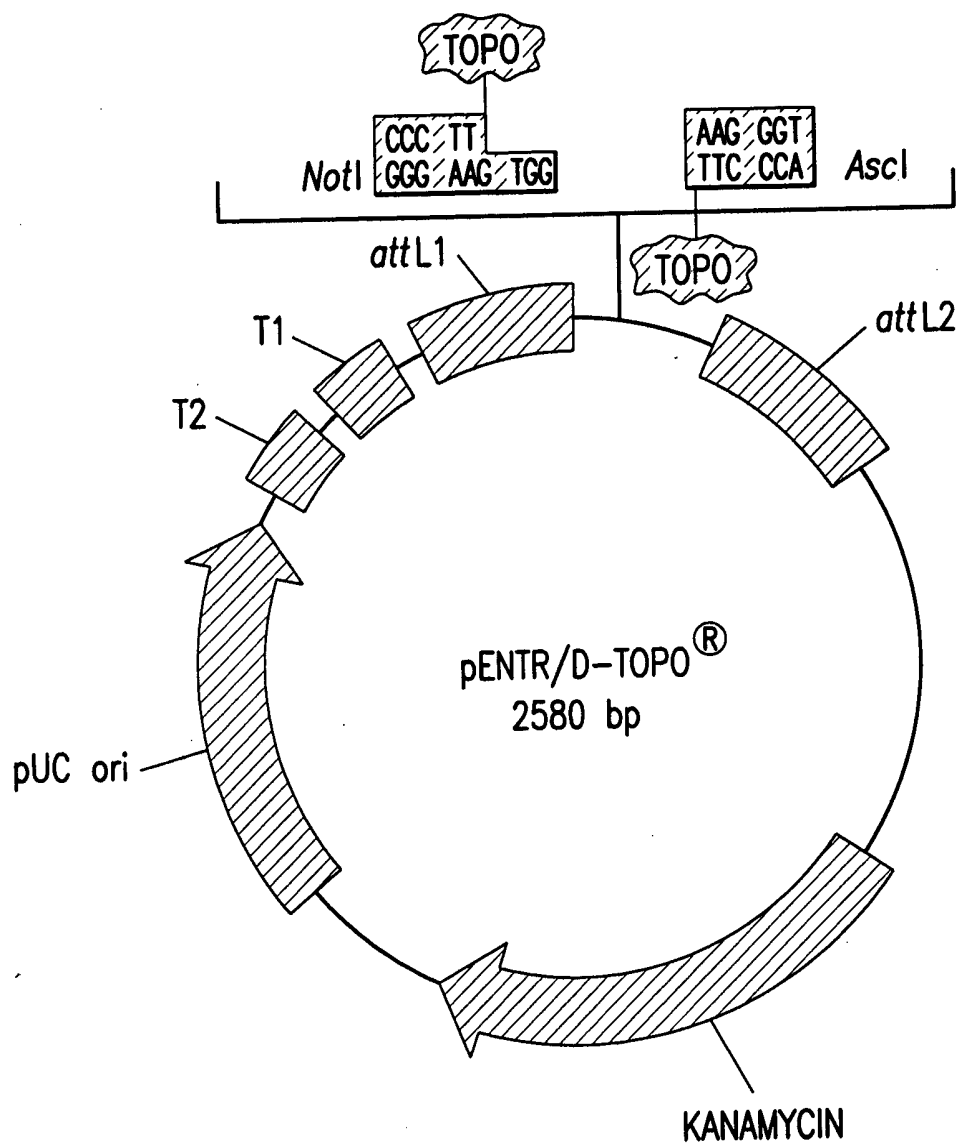


FIG. 22A

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```
1 ctttcctgcg ttatcccctg attctgtgga taaccgtatt accgcctttg agtgagctga
61 taccgctcgc cgcagccgaa cgaccgagcg cagcgagtca gtgagcgagg aagcggaaga
121 gcgccaata cgcaaaccgc ctctccccgc gcgttgcccg attcattaat gcagctggca
181 cgacagggtt cccgactgga aagcgggcag tgagcgcaac gcaattaata cgcgtaccgc
241 tagccaggaa gagttttag aaacgcaaaa aggccatccg tcaggatggc cttctgctta
301 gtttgatgcc tggcagttta tggcgggcgt cctgcccgcc accctccggg ccgttgcttc
361 acaacgttca aatccgctcc cggcggattt gtcctactca ggagagcggt caccgacaaa
421 caacagataa aacgaaaggc ccagtcttcc gactgagcct ttcgttttat ttgatgcctg
481 gcagttccct actctcgcgt taacgctagc atggatgttt tcccagtcac gacgttgtaa
541 aacgacggcc agtcttaagc tcgggcccc aataatgatt ttattttgac tgatagtac
601 ctgttcgttg caacaaattg atgagcaatg cttttttata atgccaactt tgtacaaaaa
661 agcaggtccc gcggccgccc cttcaccatg nnnnnnnna agggaggcg cgccgacca
721 gctttcttgt acaaagttgg cattataaga aagcattgct tatcaatttg ttgcaacgaa
781 caggtcacta tcagtcaaaa taaaatcatt atttgccatc cagctgatat cccctatagt
841 gagtcgtatt acatgggtcat agctgtttcc tggcagctct ggcccgtgtc tcaaaatctc
901 tgatgttaca ttgcacaaga taaaaatata tcatcatgaa caataaaaact gtctgcttac
961 ataaacagta atacaagggg tgttatgagc catattcaac gggaaacgtc gaggccgca
1021 tttaaattcca acatggatgc tgatttatat gggataaat gggctcgcga taatgtcggg
1081 caatcaggtg cgacaatcta tcgcttgat ggaagcccg atgcgccaga gttgtttctg
1141 aaacatggca aaggtagcgt tgccaatgat gttacagatg agatggtcag actaaactgg
1201 ctgacggaat ttatgcctct tccgaccatc aagcatttta tccgtactcc tgatgatgca
1261 tggttactca ccaactgcgt ccccgaaaa acagcattcc aggtattaga agaatatcct
1321 gattcaggtg aaaatattgt tgatgcgctg gcagtgttcc tgcgccggtt gcattcgatt
1381 cctgtttgta attgtccttt taacagcgat cgcgtatttc gtctcgctca ggcgcaatca
1441 cgaatgaata acggtttggt tgatgcgagt gattttgatg acgagcgtaa tggctggcct
1501 gttgaacaag tctggaaaga aatgcataaa cttttgccat tctcaccgga ttcagtcgtc
1561 actcatggtg atttctcact tgataacctt atttttgacg aggggaaatt aataggttgt
1621 attgatgttg gacgagtcgg aatcgagac cgataccagg atcttgccat cctatggaac
1681 tgcctcgtg agttttctcc ttcattacag aaacggcttt ttcaaaaata tggattgat
1741 aatcctgata tgaataaatt gcagtttcat ttgatgctcg atgagttttt ctaatcagaa
1801 ttggttaatt gggtgtaaca ctggcagagc attacgctga cttgacggga cggcgcaagc
1861 tcatgaccaa aatcccttaa cgtgagttac gcgtcgttcc actgagcgtc agaccccgta
1921 gaaaagatca aaggatcttc ttgagatcct tttttctgc gcgtaatctg ctgcttgcaa
1981 acaaaaaaac caccgtacc agcgggtggt tgtttgccg atcaagagct accaactctt
2041 tttccgaagg taactggctt cagcagagcg cagataccaa atactgtcct tctagtgtag
2101 ccgtagttag gccaccactt caagaactct gtagcaccgc ctacatacct cgctctgcta
2161 atcctgttac cagtggctgc tgccagtggc gataagtcgt gtcttaccgg gttggactca
2221 agacgatagt taccggataa ggcgcagcgg tcgggctgaa cgggggggtc gtgcacacag
2281 cccagcttgg agcgaacgac ctacaccgaa ctgagatacc tacagcgta gcattgagaa
2341 agcggcacgc ttcccgaagg gagaaaggcg gacaggtatc cggtaagcgg cagggtcgga
2401 acaggagagc gcacgagga gcttccagg ggaacgcct ggtatcttta tagtcctgtc
2461 gggtttcgcc acctctgact tgagcgtcga tttttgtgat gctcgtcagg ggggcggagc
2521 ctatgaaaa acgccagcaa cgcggccttt ttacggttcc tggcctttg ctggcctttt
2581 gctcacatgt t
```

FIG.22B

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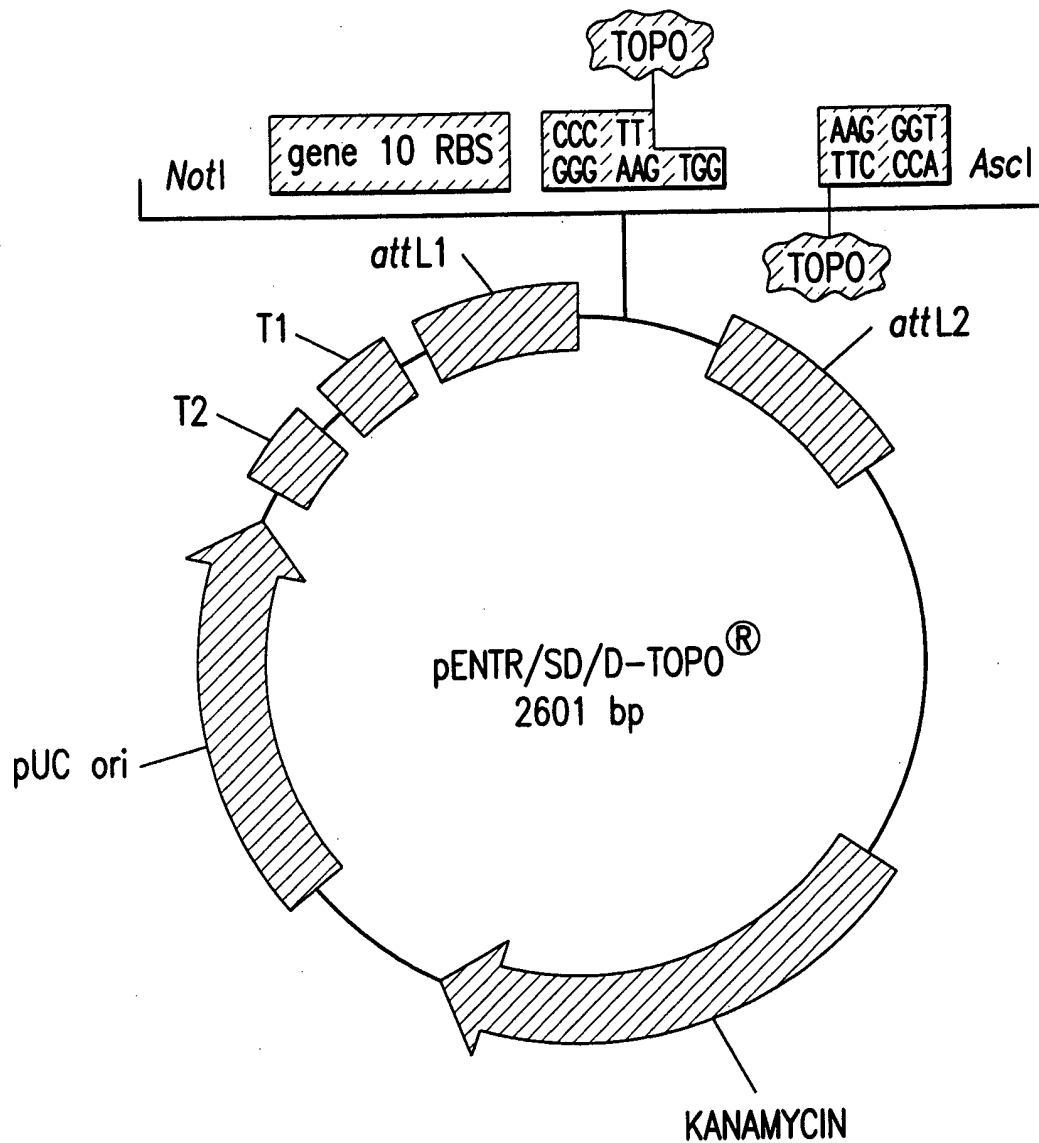
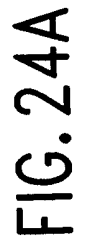


FIG. 23A

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1 ctttcctgcg ttatcccctg attctgtgga taaccgtatt accgcctttg agtgagctga
61 taccgctcgc cgcagccgaa cgaccgagcg cagcgagtca gtgagcgagg aagcggaaga
121 gcgccaata cgcaaaccgc ctctcccgc gcgttgccg attcattaat gcagctggca
181 cgacaggttt cccgactgga aagcgggcag tgagcgcaac gcaattaata cgcgtaccgc
241 tagccaggaa gagttttag aaacgcaaaa aggccatccg tcaggatggc cttctgctta
301 gtttgatgcc tggcagttta tggcgggcgt cctgcccgcc accctccggg ccgttgcttc
361 acaacgttca aatccgctcc cggcggattt gtcctactca ggagagcggt caccgacaaa
421 caacagataa aacgaaaggc ccagtcttcc gactgagcct ttcgttttat ttgatgcctg
481 gcagttccct actctcgcgt taacgctagc atggatgttt tcccagtcac gacgttgtaa
541 aacgacggcc agtcttaagc tcgggcccc aataatgatt ttattttgac tgatagtac
601 ctgttcgttg caacaaattg atgagcaatg cttttttata atgccaactt tgtacaaaaa
661 agcaggctcc gcggccgcct tgtttaactt taagaaggag cccttcaccn nnnnaaggg
721 tgggcgcgcc gaccagctt tctgtacaa agttggcatt ataagaaagc attgcttatc
781 aatttggtgc aacgaacagg tcactatcag tcaaaataaa atcattatgt gccatccagc
841 tgatatcccc tatagttagt cgtattacat ggtcatagct gtttcctggc agctctggcc
901 cgtgtctcaa aatctctgat gttacattgc acaagataaa aatatatcat catgaacaat
961 aaaactgtct gcttacataa acagtaatac aaggggtgtt atgagccata ttcaacggga
1021 aacgtcgagg ccgcgattaa attccaacat ggatgctgat ttatatgggt ataaatgggc
1081 tcgcgataat gtcgggcaat caggtgcgac aatctatcgc ttgtatggga agcccgatgc
1141 gccagagttg tttctgaaac atggcaaaagg tagcgttgcc aatgatgta cagatgagat
1201 ggtcagacta aactggctga cggaatttat gcctcttccg accatcaagc attttatccg
1261 tactcctgat gatgcatggt tactcaccac tgcgatcccc ggaaaaacag cattccaggt
1321 attagaagaa taccctgatt caggtgaaaa tattgttgat gcgctggcag tgctcctgcy
1381 ccggttgcat tcgattcctg tttgtaattg tccttttaac agcgatcgcy tatttcgtct
1441 cgctcaggcg caatcacgaa tgaataacgg tttggttgat gcgagtgatt ttgatgacga
1501 gcgtaatggc tggcctgttg aacaagtctg gaaagaaatg cataaacttt tgccattctc
1561 accggattca gtcgtcactc atggtgattt ctacttgat aaccttattt ttgacgaggg
1621 gaaattaata ggttgatttg atgttgagc agtcggaatc gcagaccgat accaggatct
1681 tgccatccta tggaactgcc tcggtgagtt ttctccttca ttacagaaac ggctttttca
1741 aaaatatggt attgataatc ctgatatgaa taaattgcag ttcatattga tgctcgatga
1801 gtttttctaa tcagaattgg ttaattgggt gtaacactgg cagagcatta cgctgacttg
1861 acgggacggc gcaagctcat gacaaaatc ccttaacgtg agttacgcgt cgttccactg
1921 agcgtcagac cccgtagaaa agatcaaagg atcttcttga gatccttttt ttctgcgcgt
1981 aatctgctgc ttgcaaacaa aaaaaccacc gctaccagcy gtggtttgtt tgccggatca
2041 agagctacca actctttttc cgaaggtaac tggcttcagc agagcgcaga taccaaatac
2101 tgccttctta gtgtagccgt agttaggcca ccaactcaag aactctgtag caccgcctac
2161 atacctcgtc ctgctaattc tgttaccagt ggctgctgcc agtggcgata agtcgtgtct
2221 taccgggttg gactcaagac gatagttacc ggataaggcg cagcggctcg gctgaacggg
2281 gggttcgtgc acacagccca gcttgagcgc aacgacctac accgaactga gatacctaca
2341 gcgtgagcat tgagaaagcg ccacgcttcc cgaagggaga aaggcggaca ggtatccggt
2401 aagcggcagg gtcggaacag gagagcgcac gagggagctt ccagggggaa acgcctggta
2461 tctttatagt cctgtcgggt ttcgccacct ctgacttgag cgtcgatttt tgtgatgctc
2521 gtcagggggg cggagcctat ggaaaaacgc cagcaacgcg gcctttttac ggttcctggc
2581 cttttgctgg cttttgctc acatgtt

FIG.23B



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1	gacggatcgg	gagatctccc	gatcccctat	ggtcgactct	cagtacaatc	tgctctgatg
61	ccgcatagtt	aagccagtat	ctgctccctg	cttggtgtgt	ggaggtcgct	gagtagtgcg
121	cgagcaaaat	ttaagctaca	acaaggcaag	gcttgaccga	caattgcatg	aagaatctgc
181	ttaggggttag	gcgttttgcg	ctgcttcgcg	atgtacgggc	cagatatacg	cgttgacatt
241	gattattgac	tagttattaa	tagtaatcaa	ttacgggggc	attagttcat	agcccatata
301	tggagttccg	cgttacataa	cttacggtaa	atggcccgcg	tggctgaccg	cccaacgacc
361	cccgccatt	gacgtcaata	atgacgtatg	ttcccatagt	aacgccataa	gggactttcc
421	attgacgtca	atgggtggac	tatttacggt	aaactgcccc	cttggcagta	catcaagtgt
481	atcatatgcc	aagtacgccc	cctattgacg	tcaatgacgg	taaatggccc	gcctggcatt
541	atgccagta	catgacctta	tgggactttc	ctacttggca	gtacatctac	gtattagtca
601	tcgctattac	catggtgatg	cggttttggc	agtacatcaa	tgggcgtgga	tagcggtttg
661	actcacgggg	atttccaagt	ctccacccca	ttgacgtcaa	tgggagtttg	ttttggcacc
721	aaaatcaacg	ggactttcca	aaatgtcgta	acaactccgc	cccattgacg	caaatgggcg
781	gtaggcgtgt	acggtgggag	gtctatataa	gcagagctct	ctggctaact	agagaacca
841	ctgcttactg	gcttatcgaa	attaatacga	ctcactatag	ggagacccaa	gctggctagt
901	taagctatca	acaagtttgt	acaaaaaagc	aggctccgcg	gccgcccctt	caccatgnnn
961	nnnnnnaagg	gtgggcgcgc	cgaccagct	ttcttgta	aagtgggtga	tctagaggcg
1021	ccgcggttcg	aaggttaagc	tatccctaac	cctctcctcg	gtctcgattc	tacgcgtacc
1081	ggttagtaat	gagtttaa	gggggaggct	aactgaaaca	cggaaggaga	caataccgga
1141	aggaacccgc	gctatgacgg	caataaaaag	acagaataaa	acgcacgggt	gttgggtcgt
1201	ttgttcataa	acgcggggtt	cggtcccagg	gctggcactc	tgtcgatacc	ccaccgagac
1261	ccattgggg	ccaatacgcc	cgcgtttctt	ccttttcccc	acccacccc	ccaagttcgg
1321	gtgaaggccc	agggtcgcga	gccaacgtcg	gggcggcagg	ccctgccata	gcagatctgc
1381	gcagctgggg	ctctaggggg	tatccccacg	cgccctgtag	cggcgcatta	agcgcggcgg
1441	gtgtggtggt	tacgcgcagc	gtgaccgcta	cacttgccag	cgccctagcg	cccgcctcct
1501	tcgctttctt	cccttccttt	ctcgccacgt	tcgcccggctt	tccccgtaaa	gctctaaatc
1561	ggggcatccc	tttaggggtc	cgatttagtg	ctttacggca	cctcgacccc	aaaaaacttg
1621	attagggtga	tggttcacgt	agtgggccat	cgccctgata	gacgggtttt	cgccctttga
1681	cgttggagtc	cacgttcttt	aatagtggac	tcttggtcca	aactggaaca	acactcaacc
1741	ctatctcggt	ctattctttt	gatttataag	ggattttggg	gatttcggcc	tattggttaa
1801	aaaatgagct	gatttaacaa	aaatttaacg	cgaattaatt	ctgtggaatg	tgtgtcagtt
1861	aggggtgtgga	aagtccccag	gctccccagc	aggcagaagt	atgcaaagca	tgcattctcaa
1921	ttagtcagca	accagggtgtg	gaaagtcccc	aggctcccca	gcaggcagaa	gtatgcaaag
1981	catgcatctc	aattagtcag	caaccatagt	cccggccccta	actccgcccc	tcccgcccct
2041	aactccgccc	agttccgccc	attctccgcc	ccatggctga	ctaatttttt	ttatttatgc
2101	agaggccgag	gccgcctctg	cctctgagct	attccagaag	tagtgaggag	gcttttttgg
2161	aggcctaggc	ttttgcaaaa	agctcccggg	agcttgata	tccattttcg	gatctgatca
2221	agagacagga	tgaggatcgt	ttcgcatgat	tgaacaagat	ggattgcacg	caggttctcc
2281	ggccgcttgg	gtggagaggc	tattcggtta	tgactgggca	caacagacaa	tcggctgctc
2341	tgatgccgcc	gtgttcgggc	tgtagcgca	ggggcgccc	gttctttttg	tcaagaccga
2401	cctgtccggt	gccctgaatg	aactgcagga	cgaggcagcg	cggctatcgt	ggctggccac
2461	gacgggcgtt	ccttgccgag	ctgtgctcga	cgttgtcact	gaagcgggaa	gggactggct
2521	gctattgggc	gaagtgcggg	ggcaggatct	cctgtcatct	cacettgtct	ctgccgagaa
2581	agtatccatc	atggctgatg	caatgcggcg	gctgcatacg	cttgatccgg	ctacctgcc
2641	attcgaccac	caagcgaaac	atcgcatcga	gcgagcacgt	actcggatgg	aagccggtct
2701	tgtagcatcag	gatgatctgg	acgaagagca	tcaggggctc	gcgccagccg	aactgttcgc
2761	caggctcaag	gcgcgcatgc	ccgacggcga	ggatctcgtc	gtgacccatg	gcgatgcctg

FIG.24B

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2821 cttgccgaat atcatggtgg aaaatggccg cttttctgga ttcacgcact gtggccggct
2881 ggggtgtggcg gaccgctatc aggacatagc gttggctacc cgtgatattg ctgaagagct
2941 tggcggcgaa tgggctgacc gcttcctcgt gctttacggt atcgccgctc ccgattcgca
3001 gcgcacgcgc ttctatcgcc ttcttgacga gttcttctga gcgggactct ggggttcgcg
3061 aaatgaccga ccaagcgacg cccaacctgc catcacgaga tttcgattcc accgccgcct
3121 tctatgaaag gttgggcttc ggaatcggtt tccgggacgc cggctggatg atcctccagc
3181 gcggggatct catgctggag ttcttcgccc accccaactt gtttattgca gcttataatg
3241 gttacaaata aagcaatagc atcacaaatt tcacaaataa agcatttttt tcaactgcatt
3301 ctagtgtggg ttgttccaaa ctcatcaatg tatcttatca tgtctgtata ccgtcgacct
3361 ctagctagag cttggcgtaa tcatggtcat agctgtttcc tgtgtgaaat tgttatccgc
3421 tcacaattcc acacaacata cgagccggaa gcataaagt taaagcctgg ggtgcctaata
3481 gagtgagcta actcacatta attgcgttgc gctcactgcc cgctttccag tcgggaaacc
3541 tgtcgtgcca gctgcattaa tgaatcggcc aacgcgcggg gagaggcggg ttgctgattg
3601 ggcgtctctc cgcttcctcg ctactgact cgctgcgctc ggtcgttcgg ctgctggcag
3661 cggtatcagc tcaactcaaag gcggtataac ggttatccac agaatacagg gataacgcag
3721 gaaagaacat gtgagcaaaa ggccagcaaa aggccaggaa ccgtaaaaag gccgcgttgc
3781 tggcggtttt ccataggctc cgccccctg acgagcatca caaaaatcga cgctcaagtc
3841 agaggtggcg aaacccgaca ggactataaa gataccaggc gtttccccct ggaagctccc
3901 tcgtgcgctc tctgttccg accctgccgc ttaccggata cctgtccgcc tttctccctt
3961 cggaagcgt ggcgctttct caatgctcac gctgtaggta tctcagttcg gtgtaggtcg
4021 ttcgctccaa gctgggctgt gtgcacgaac cccccgttca gcccgaccgc tgcgccttat
4081 ccggttaacta tcgtcttgag tccaaccgg taagacacga cttatcgcca ctggcagcag
4141 ccactggtaa caggattagc agagcgaggt atgtaggcgg tgctacagag ttcttgaagt
4201 ggtggcctaa ctacggctac actagaagga cagtatttgg tatctgcgct ctgctgaagc
4261 cagttacctt cggaaaaaga gttgtagct cttgatccgg caaacaacc accgctggta
4321 gcggtgggtt ttttgtttgc aagcagcaga ttacgcgcag aaaaaagga tctcaagaag
4381 atcctttgat cttttctacg ggtctgacg ctacgtggaa cgaaaactca cgtaaggga
4441 ttttggtcac gagattatca aaaaggatct tcacctagat ctttttaaat taaaaatgaa
4501 gttttaaatc aatctaaagt atatatgagt aaacttggtc tgacagttac caatgcttaa
4561 tcagtgaggc acctatctca gcgatctgtc tatttcggtc atccatagtt gcctgactcc
4621 ccgtcgtgta gataactacg atacgggagg gcttaccatc tggccccagt gctgcaatga
4681 taccgcgaga cccacgctca ccggtccag atttatcagc aataaaccag ccagccggaa
4741 gggccgagcg cagaagtggg cctgcaactt tatccgcctc catccagtct attaattggt
4801 gccgggaagc tagagtaagt agttcgccag ttaatagttt gcgcaacgtt gttgccattg
4861 ctacaggcat cgtggtgtca cgctcgtcgt ttggtatggc ttcattcagc tccggttccc
4921 aacgatcaag gcgagttaca tgatcccca tgttggtgaa aaaagcggtt agctccttcg
4981 gtcctccgat cgttgtcaga agtaagtgg ccgcagtgtt atcactcatg gttatggcag
5041 cactgcataa ttctcttact gtcatgccat ccgtaagatg cttttctgtg actggtgagt
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5161 caatacggga taataccgcg ccacatagca gaactttaaa agtgctcatc attggaaaac
5221 gttcttcggg gcgaaaactc tcaaggatct taccgctgtt gagatccagt tcgatgtaac
5281 ccactcgtgc acccaactga tcttcagcat cttttacttt caccagcgtt tctgggtgag
5341 caaaaacagg aaggcaaaat gccgcaaaaa agggaataag ggcgacacgg aaatgttgaa
5401 tactcatact cttccttttt caatattatt gaagcattta tcagggttat tgtctcatga
5461 gcggatacat atttgaatgt atttagaaaa ataaacaaat aggggttccg cgcacatttc
5521 cccgaaaagt gccacctgac gtc

FIG.24C

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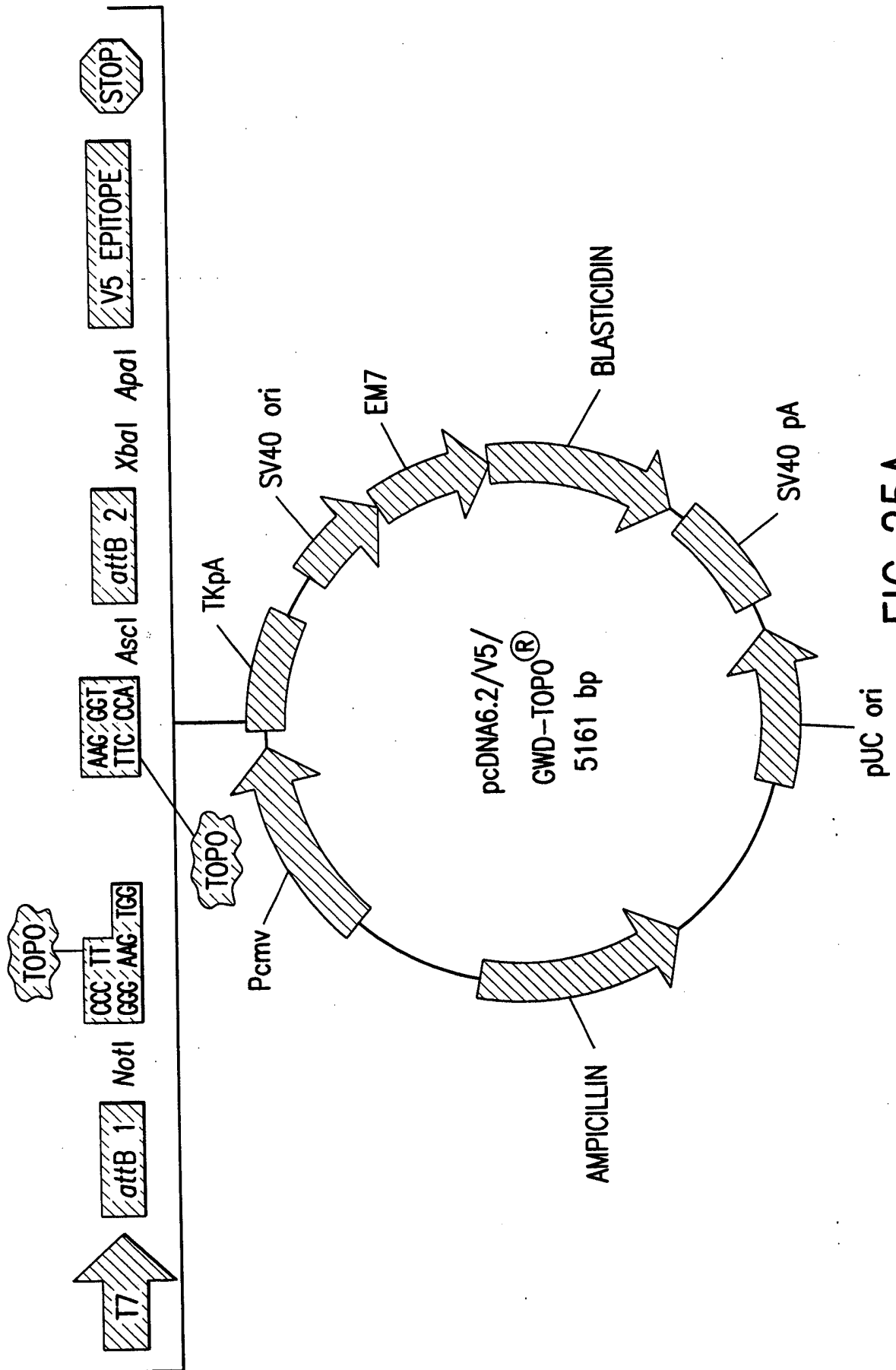


FIG. 25A

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1 gacggatcgg gagatctccc gatcccctat ggtgcactct cagtacaatc tgctctgatg
61 ccgcatagtt aagccagtat ctgctccctg cttgtgtgtt ggaggtcgct gtagtagtgcg
121 cgagcaaaat ttaagctaca acaaggcaag gcttgaccga caattgcatg aagaatctgc
181 ttaggggttag gcgttttgcg ctgcttcgcg atgtacgggc cagatatacg cgttgacatt
241 gattattgac tagttattaa tagtaatcaa ttacggggtc attagttcat agcccatata
301 tggagttccg cgttacataa cttacggtaa atggcccgcg tggctgaccg cccaacgacc
361 cccgcccatt gacgtcaata atgacgtatg ttcccatagt aacgccaaata gggactttcc
421 attgacgtca atgggtggag tatttacggt aaactgccc a ctggcagta catcaagtgt
481 atcatatgcc aagtacgccc cctattgacg tcaatgacgg taaatggccc gcctggcatt
541 atgccagta catgacctta tgggactttc ctacttgga gtacatctac gtattagtca
601 tcgctattac catggtgatg cggttttggc agtacatcaa tgggcgtgga tagcggtttg
661 actcacgggg atttccaagt ctccacccca ttgacgtcaa tgggagtttg ttttggcacc
721 aaaatcaacg ggactttcca aaatgtcgta acaactccgc cccattgacg caaatgggcg
781 gtaggcgtgt acgggtggag gtctatataa gcagagctct ctggctaact agagaacca
841 ctgcttactg gcttatcgaa attaatacga ctactatag ggagacccaa gctggctagt
901 taagctatca acaagtttgt acaaaaaagc aggtccgcg gccgccctt caccatgnnn
961 nnnnnnaagg gtgggcgcgc cgaccagct ttcttgta aagtgggtga tctagagggc
1021 ccgcggttcg aaggttaagc tatecctaac cctctcctg gtctcgattc tacgcgtacc
1081 ggtagtaat gagtttaaac gggggaggct aactgaaaca cggaaggaga caataccgga
1141 aggaacccgc gctatgacgg caataaaaag acagaataaa acgcacgggt gttgggtcgt
1201 ttgttcataa acgcggggtt cgggtcccagg gctggcactc tgtcgatacc ccaccgagac
1261 cccattgggg ccaatacgcc cgcgtttctt cttttcccc accccacccc ccaagttcgg
1321 gtgaaggccc agggctcgca gccaacgtcg gggcggcagg ccctgccata gcagatctgc
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1561 ggggcatccc tttagggttc cgatttagtg ctttacggca cctcgacccc aaaaaacttg
1621 attagggtga tggttcacgt agtgggcat cgccctgata gacggttttt cgccctttga
1681 cgttggagtc cacgttcttt aatagtggac tcttggtcca aactggaaca aactcaacc
1741 ctatctcggt ctattctttt gattataag ggattttggg gatttcggcc tattggttaa
1801 aaaatgagct gatttaacaa aaatttaacg cgaattaatt ctgtggaatg tgtgtcagtt
1861 aggggtgtga aagtccccag gctccccagc aggcagaagt atgcaaagca tgcactctca
1921 ttagtcagca accaggtgtg gaaagtcccc aggtccccca gcaggcagaa gtatgcaaag
1981 catgcatctc aattagtcag caaccatagt cccgcccta actccgccc tcccgcccct
2041 aactccgccc agttccgccc attctccgcc ccatggctga ctaatttttt ttatttatgc
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2161 aggcctaggc ttttgcaaaa agctcccggg agcttgata tccattttcg gatctgatca
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2461 gcagaactcg tgggtgctggg cactgctgct gctgcggcag ctggcaacct gacttgatatc
2521 gtcgcgatcg gaaatgagaa caggggcatc ttgagcccct gcggacgggtg ccgacagggtg
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2641 gcagttggga ttcgtgaatt gctgccctct gggtatgtgt gggagggcta agcacttcgt
2701 ggccgaggag caggactgac acgtgctacg agatttcgat tccaccgccc ctttctatga
2761 aaggttgggc ttcggaatcg ttttccggga cgccggctgg atgatcctc agcgcgggga-

FIG.25B

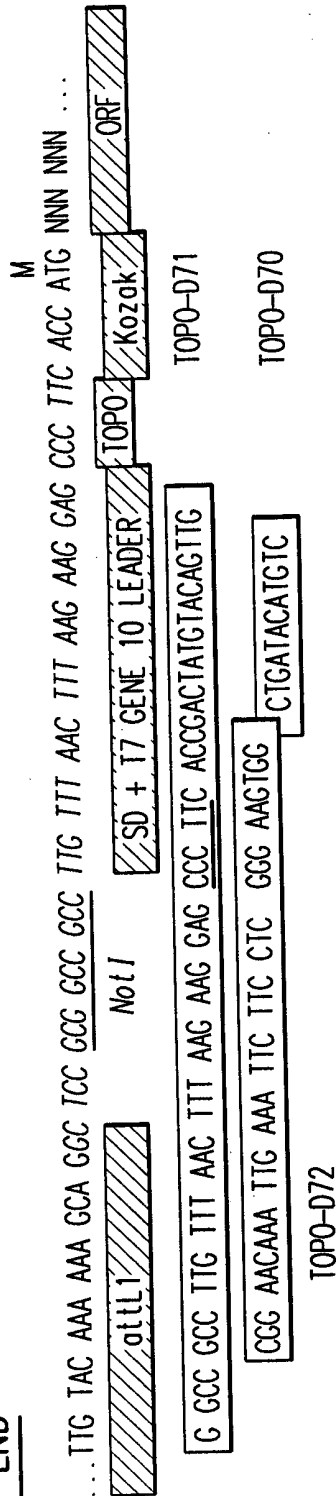
33/49

2821 tctcatgctg gagttcttcg cccaccccaa cttgtttatt gcagcttata atggttacaa
2881 ataaagcaat agcatcacia atttcacaaa taaagcattt ttttactgc attctagtgt
2941 tggtttgtcc aaactcatca atgtatctta tcatgtctgt ataccgtcga cctctagcta
3001 gagcttggtg taatcatggt catagctgtt tcctgtgtga aattgttatc cgctcacaat
3061 tccacacaac atacgagccg gaagcataaa gtgtaaagcc tgggggtgcct aatgagttag
3121 ctaactcaca ttaattgcgt tgcgctcact gcccgcttc cagtcgggaa acctgtcgtg
3181 ccagctgcat taatgaatcg gccaacgcgc ggggagaggc ggtttgcgta ttgggcgctc
3241 ttccgcttcc tcgctcactg actcgctgcg ctccggtcgtt cggctgcggc gagcgggtatc
3301 agctcactca aaggcggtaa tacgggtatc cacagaatca ggggataacg caggaaagaa
3361 catgtgagca aaaggccagc aaaaggccag gaaccgtaaa aaggccgcgt tgctggcggtt
3421 tttccatagg ctccgcccc ctgacgagca tcacaaaaat cgacgctcaa gtcagagggtg
3481 gcgaaacccg acaggactat aaagatacca ggcgtttccc cctggaagct ccctcgtgcg
3541 ctctcctgtt ccgaccctgc cgcttaccgg atacctgtcc gcctttctcc cttcgggaag
3601 cgtggcgctt tctcatagct cacgctgtag gtatctcagt tcggtgtagg tcgttcgctc
3661 caagctgggc tgtgtgcacg aacccccgt tcagcccgac cgctgcgcct tatccggtaa
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3961 ttttgtttgc aagcagcaga ttacgcgcag aaaaaaagga tctcaagaag atcctttgat
4021 cttttctacg gggctctgacg ctacgtggaa cgaaaactca cgtaaaggga ttttggatcat
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4141 aatctaaagt atatatgagt aaacttggtc tgacagttac caatgcttaa tcagttaggc
4201 acctatctca gcgatctgtc tatttcggtc atccatagtt gcctgactcc ccgtcgtgta
4261 gataactacg atacgggagg gcttaccatc tggccccagt gctgcaatga taccgcgaga
4321 cccacgtca cgggtccag atttatcagc aataaaccag ccagccggaa gggccgagcg
4381 cagaagtggc cctgcaactt tatccgcctc catccagtct attaattgtt gccgggaagc
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5041 cttccttttt caatattatt gaagcattta tcagggttat tgtctcatga gcggatacat
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5161 gccacctgac gtc

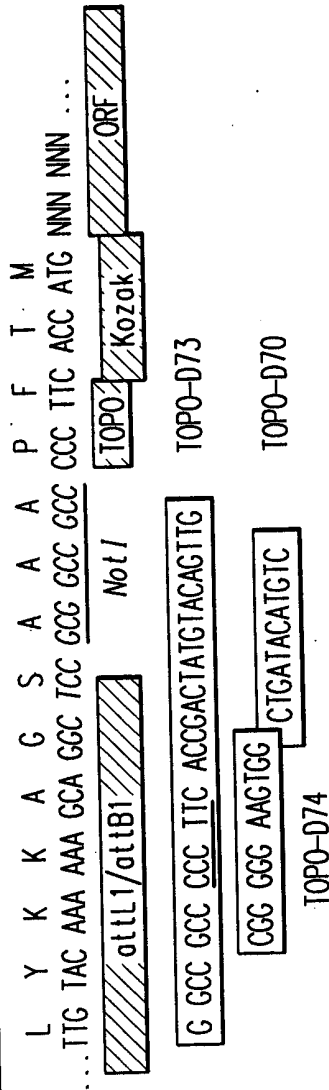
FIG.25C

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pENTR/SD-dTOPO: 5' END



pENTR-dTOPO AND pcDNAGW-dTOPO: 5' END



pENTR/SD-dTOPO, pENTR-dTOPO, AND pcDNAGW-dTOPO: 3' END

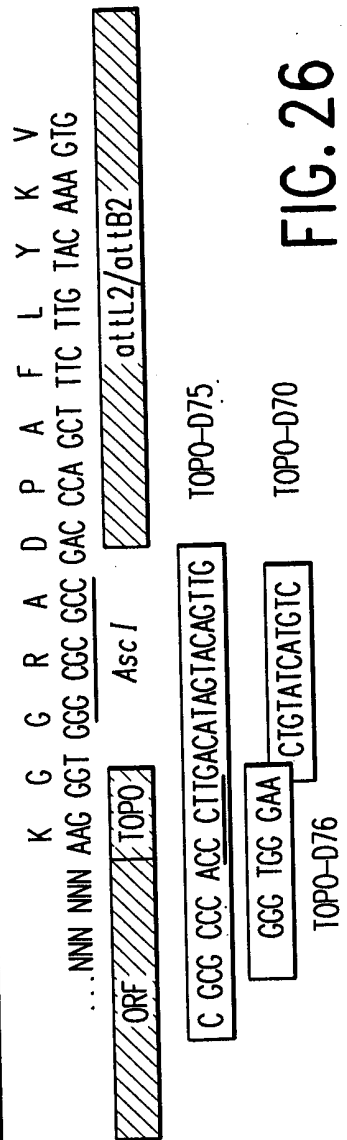


FIG. 26

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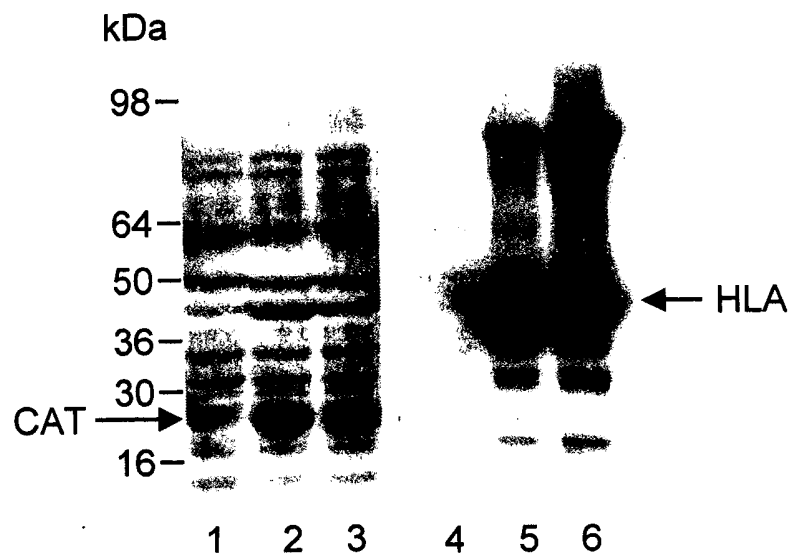


FIG.27

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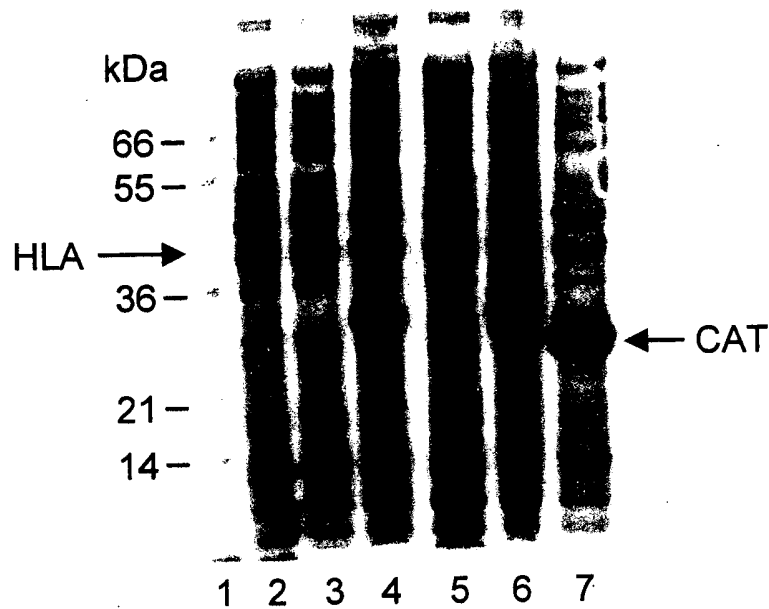


FIG.28

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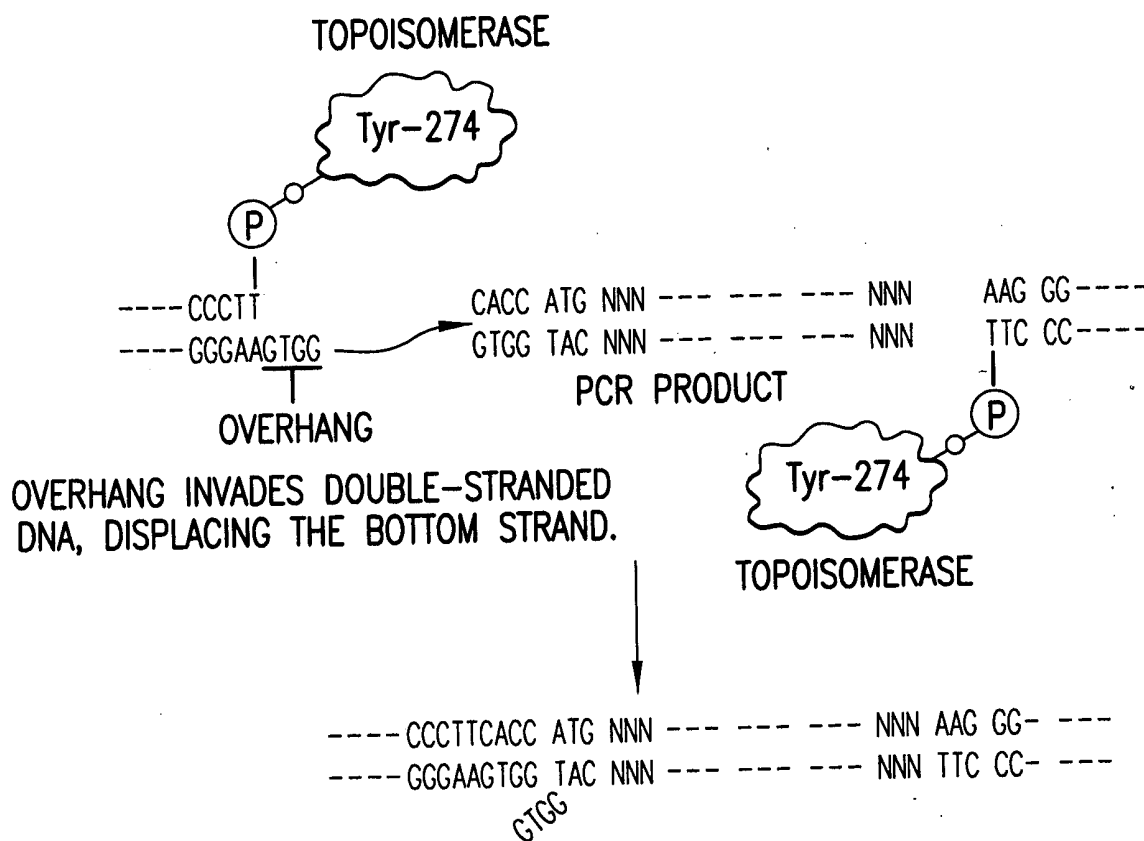


FIG. 29

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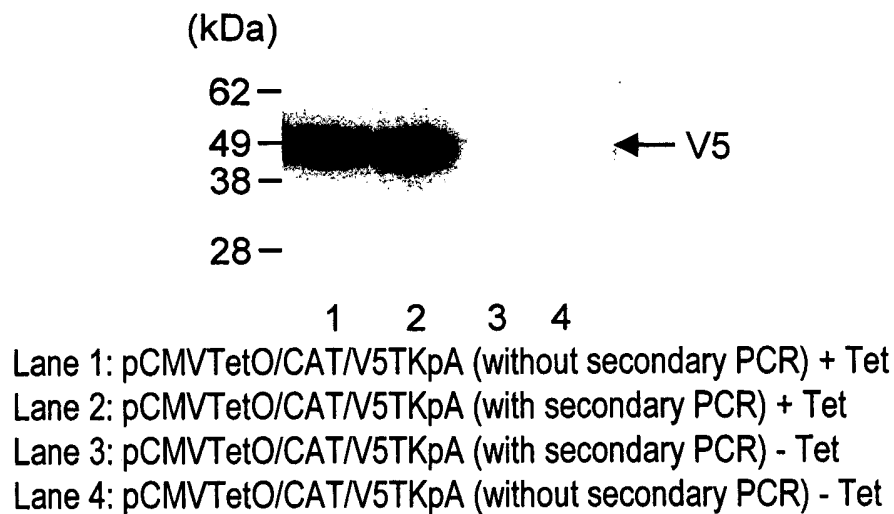


FIG.30A

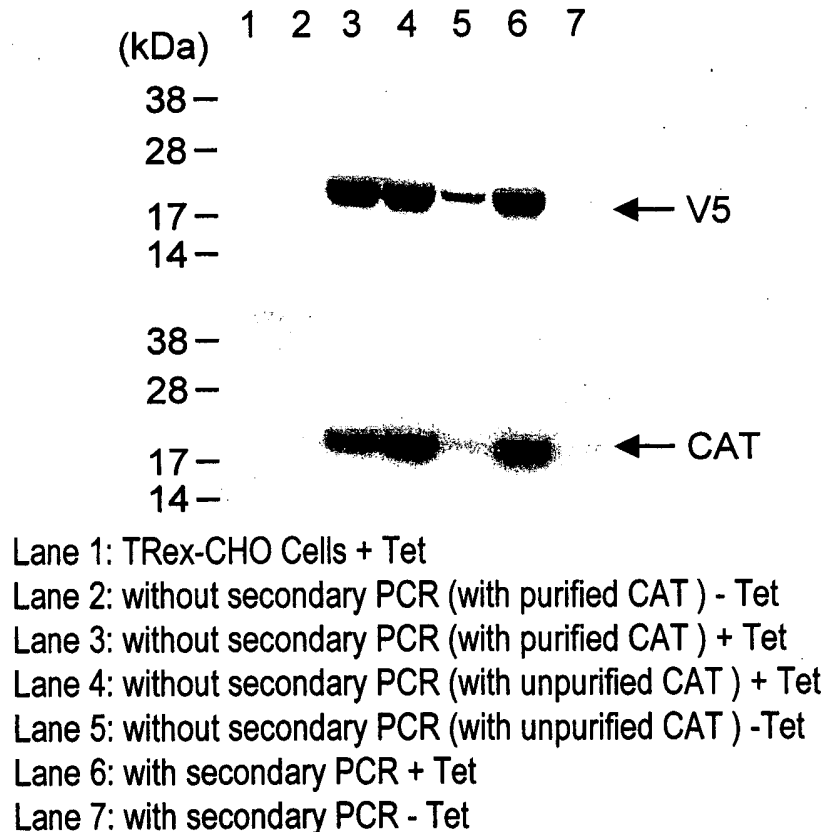
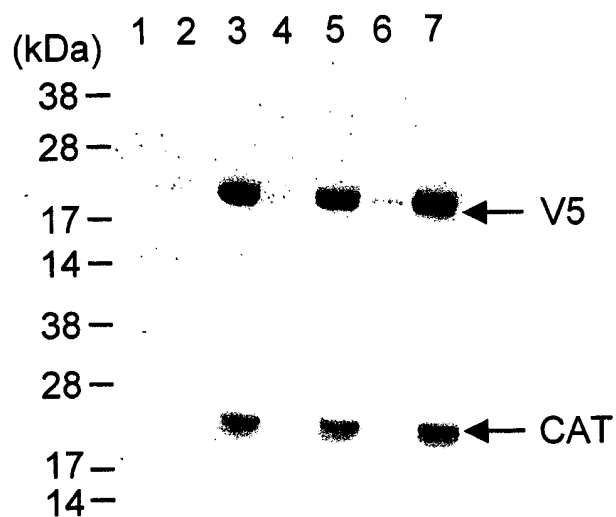


FIG.30B

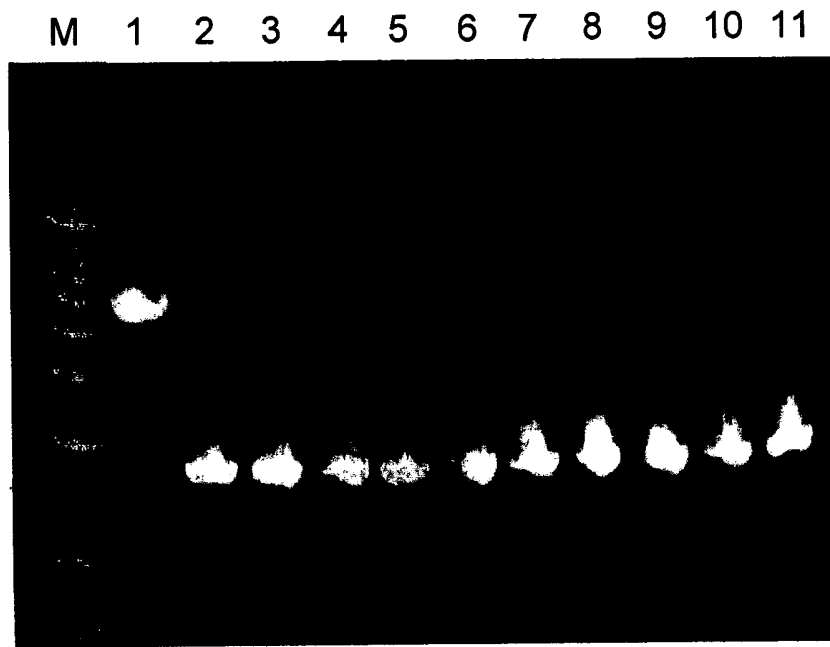
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Lane 1: TRex-293 Cells + Tet
 Lane 2: without secondary PCR (with purified CAT) - Tet
 Lane 3: without secondary PCR (with purified CAT) + Tet
 Lane 4: without secondary PCR (with unpurified CAT) - Tet
 Lane 5: without secondary PCR (with unpurified CAT) + Tet
 Lane 6: with secondary PCR - Tet
 Lane 7: with secondary PCR + Tet

FIG.30C

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Lane 1: negative control; lanes 2-11: test clones; M: 500 bp marker

FIG.31

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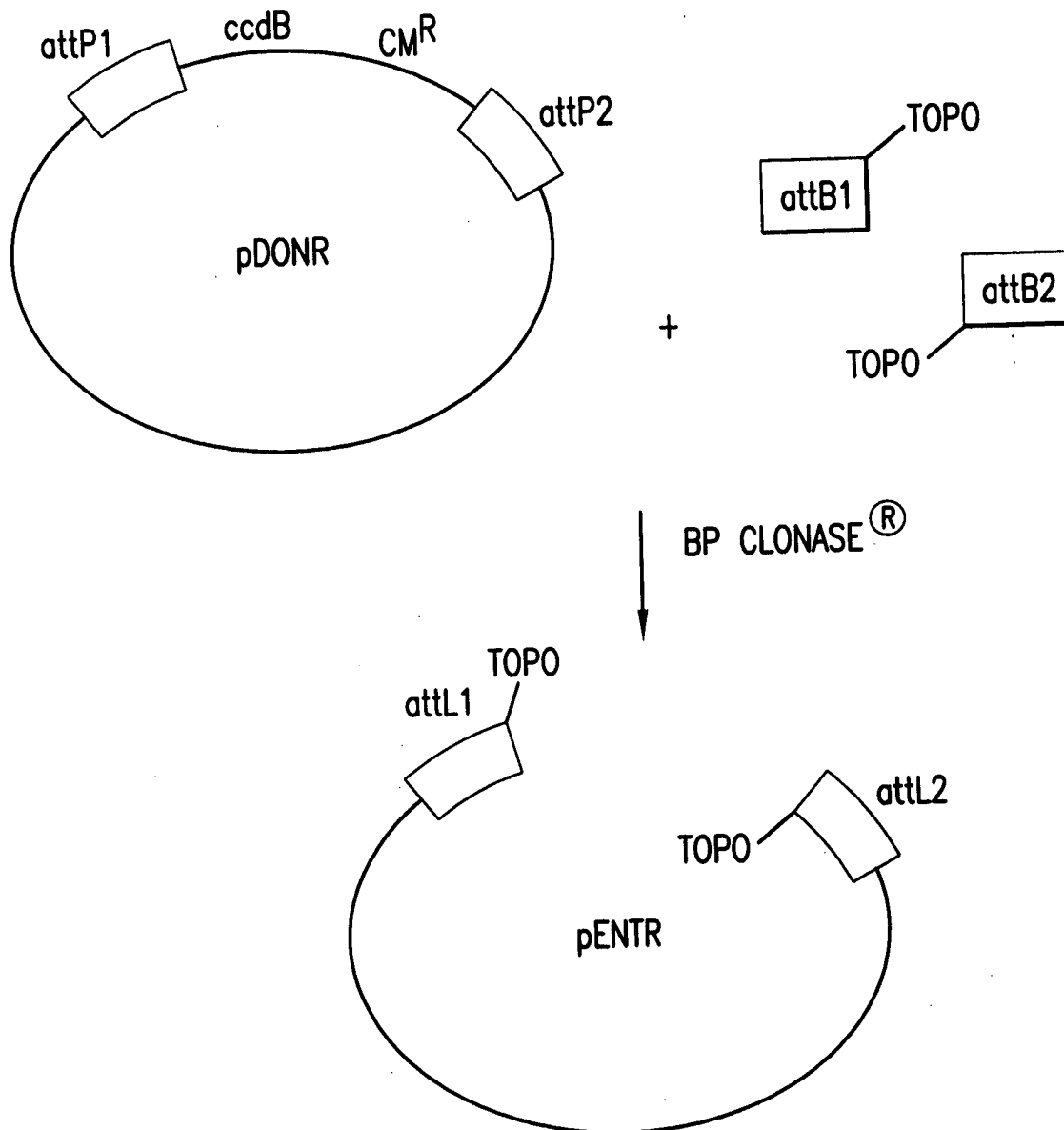


FIG. 32

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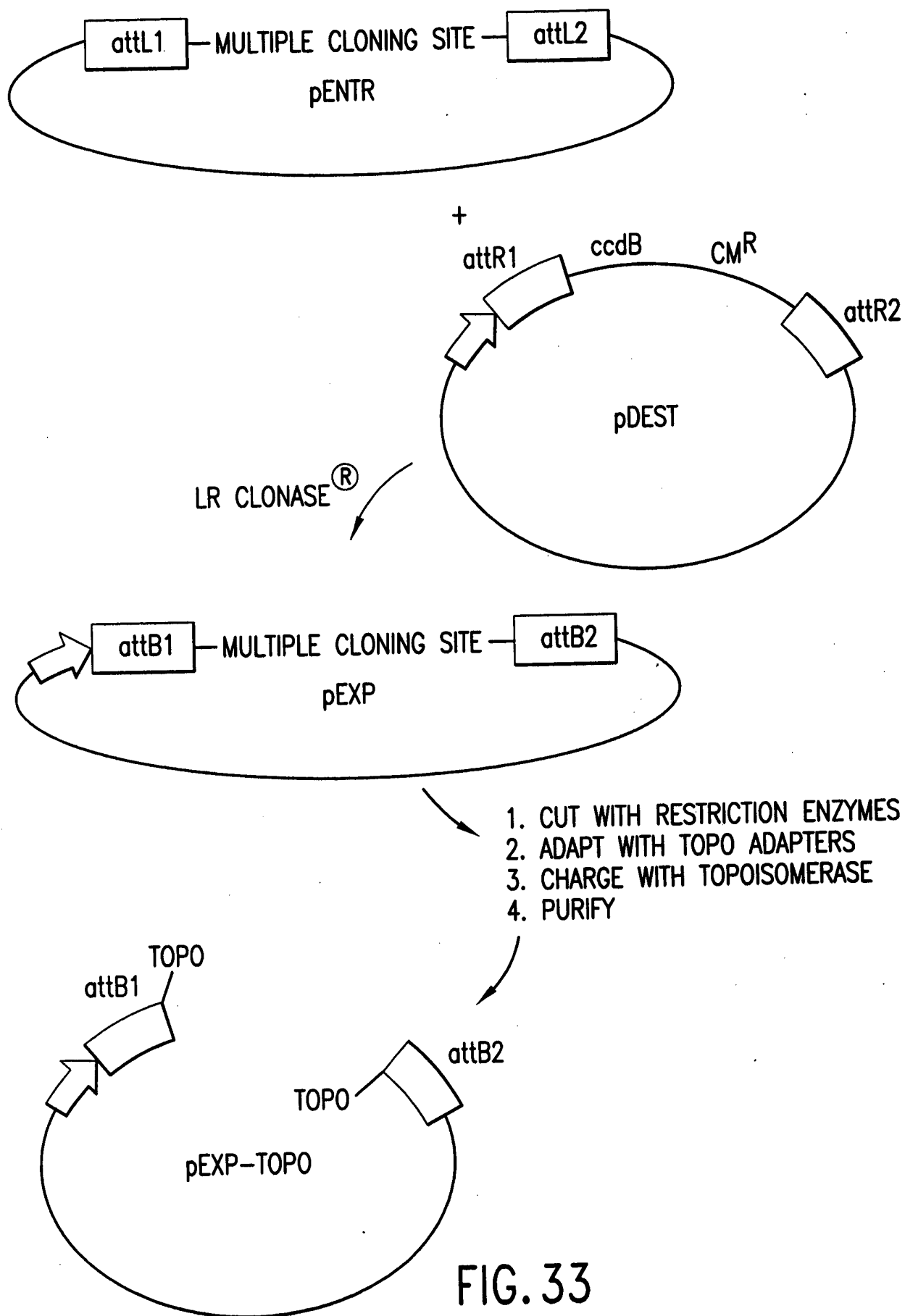


FIG. 33

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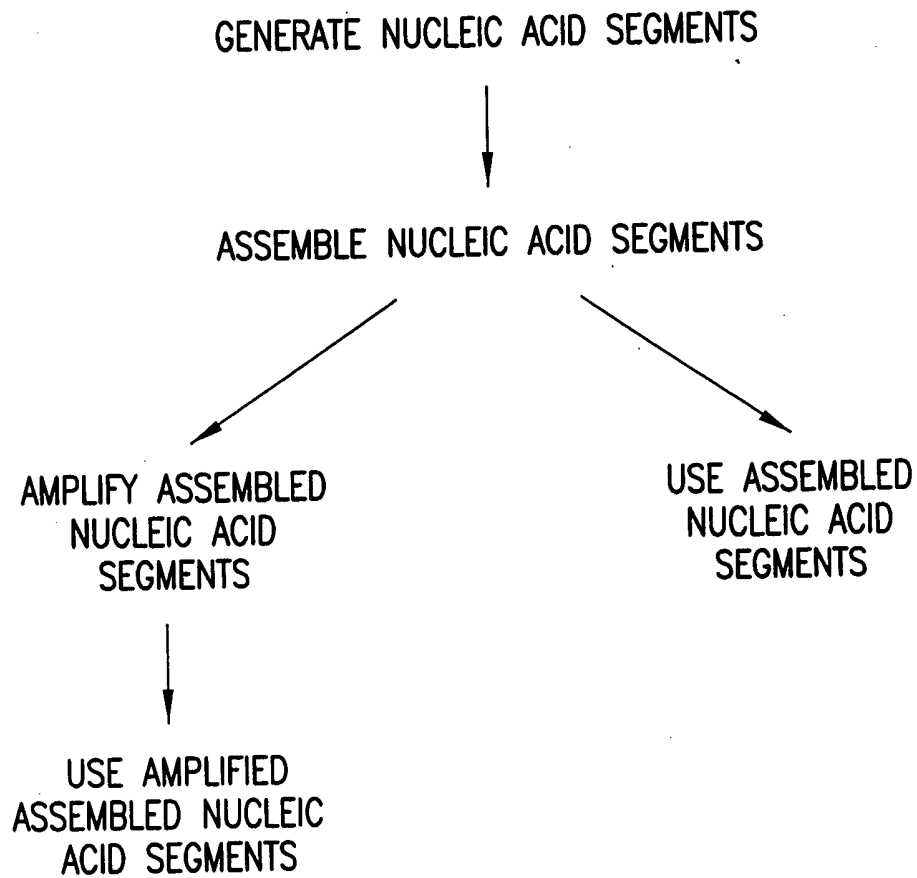


FIG. 34

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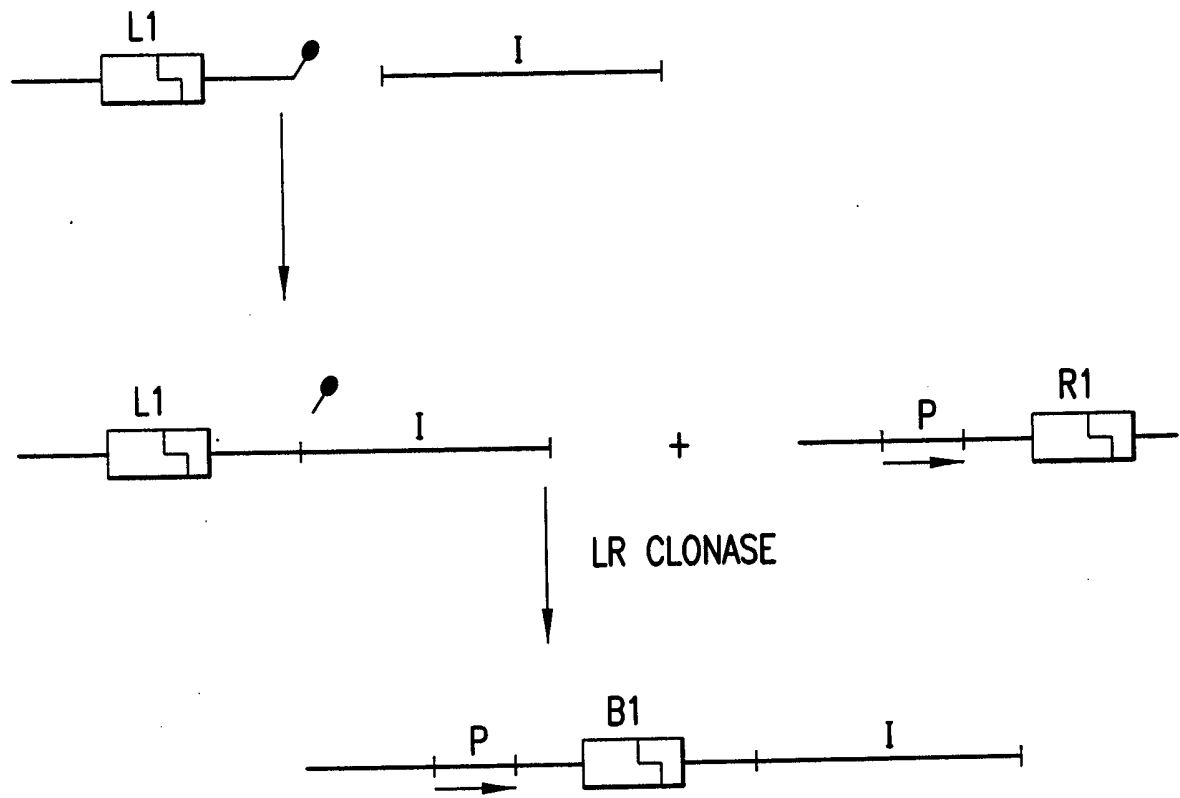


FIG. 35

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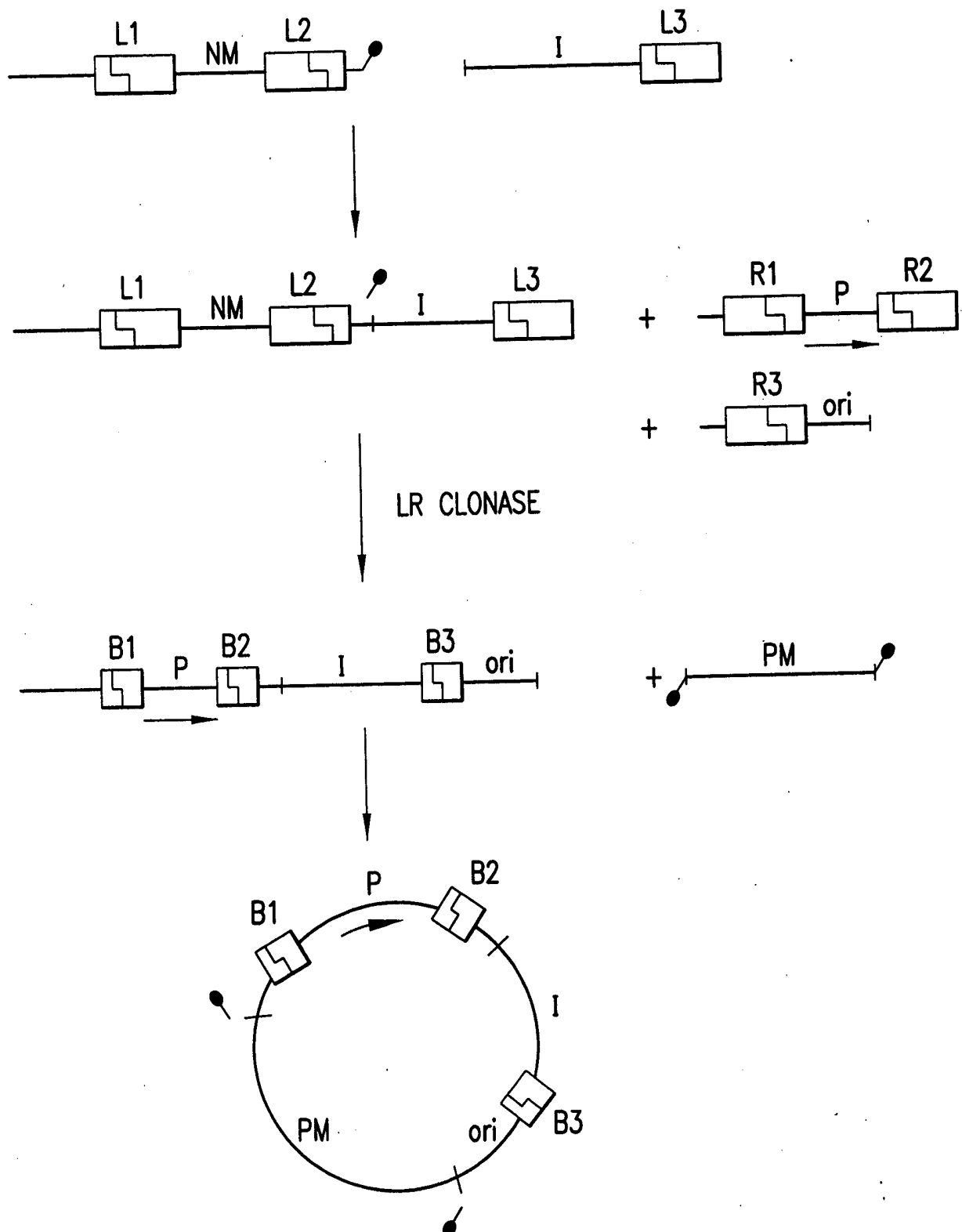


FIG. 36

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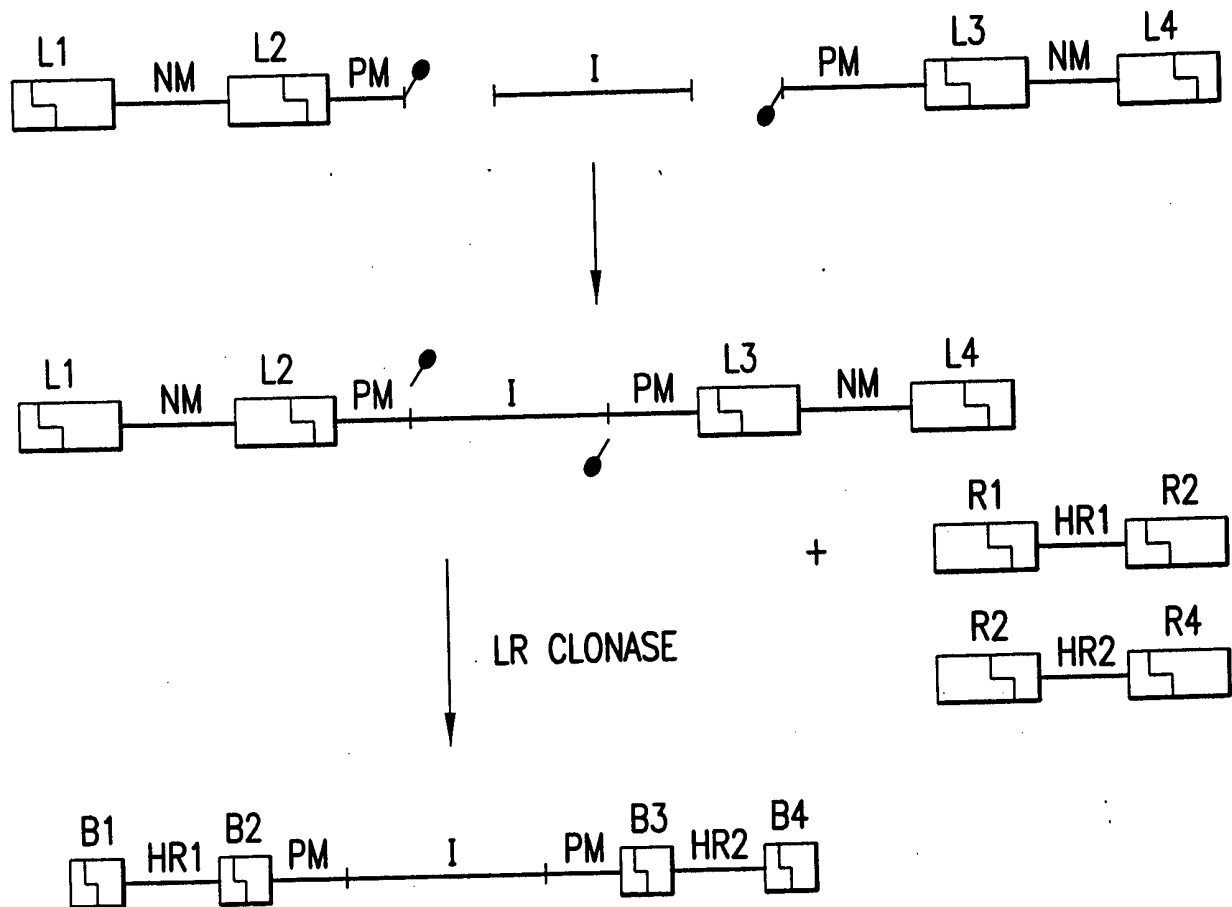


FIG. 37

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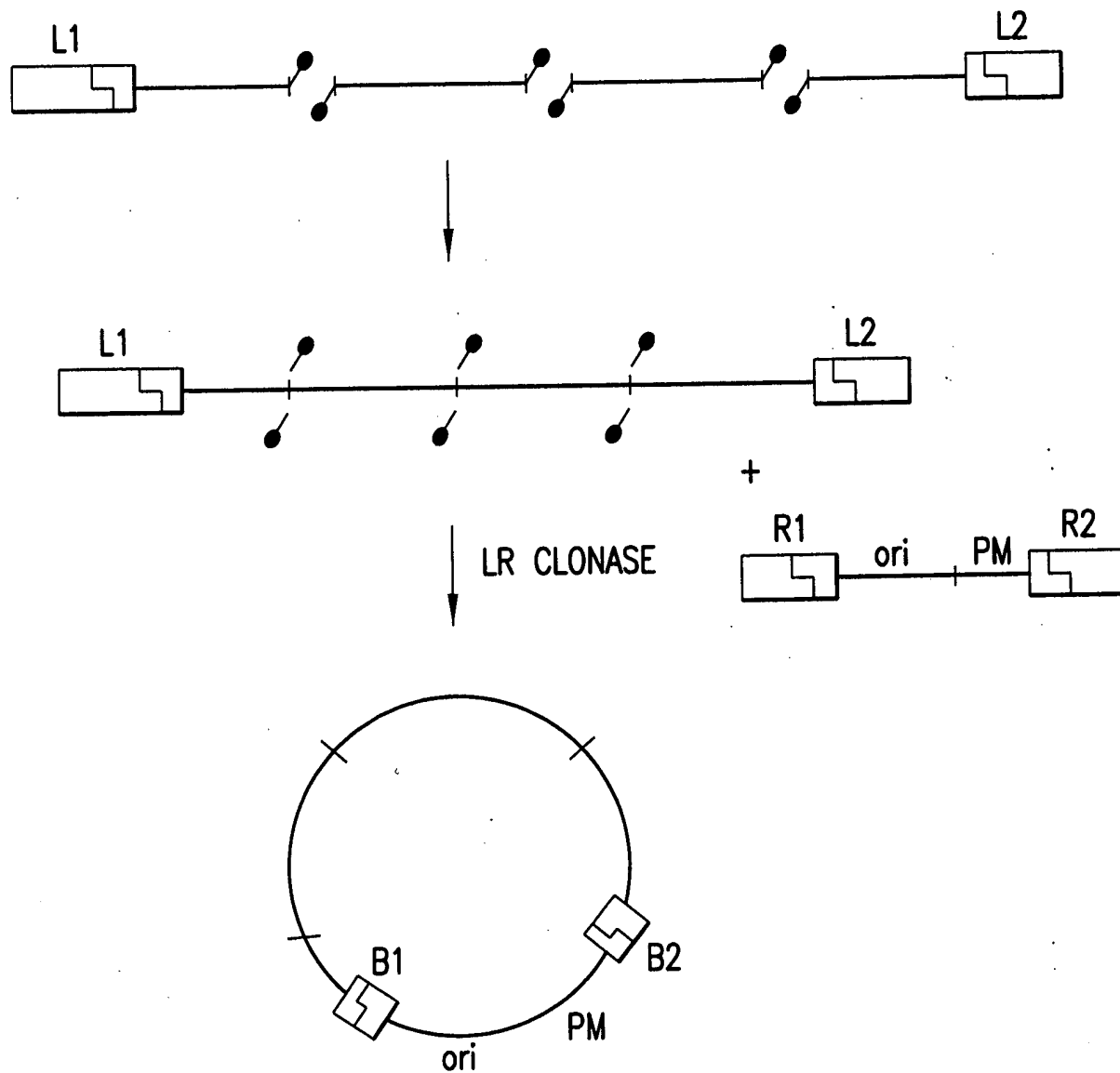


FIG. 38

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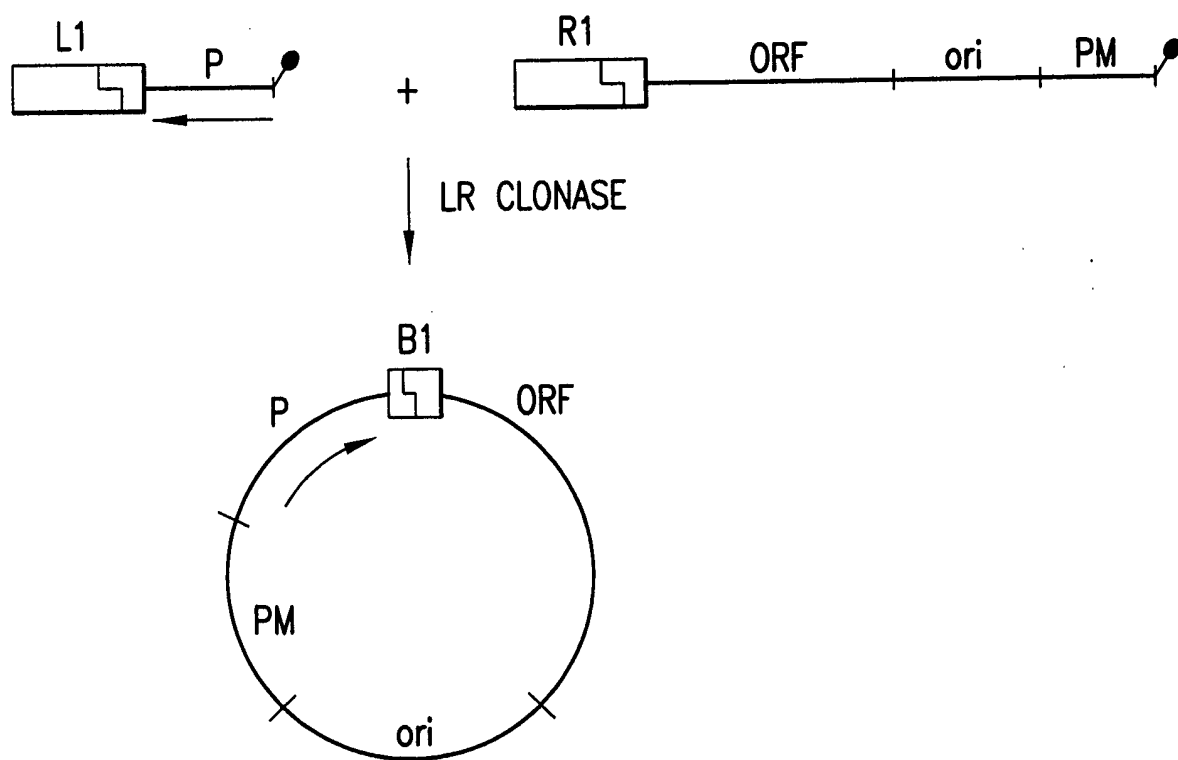


FIG. 39

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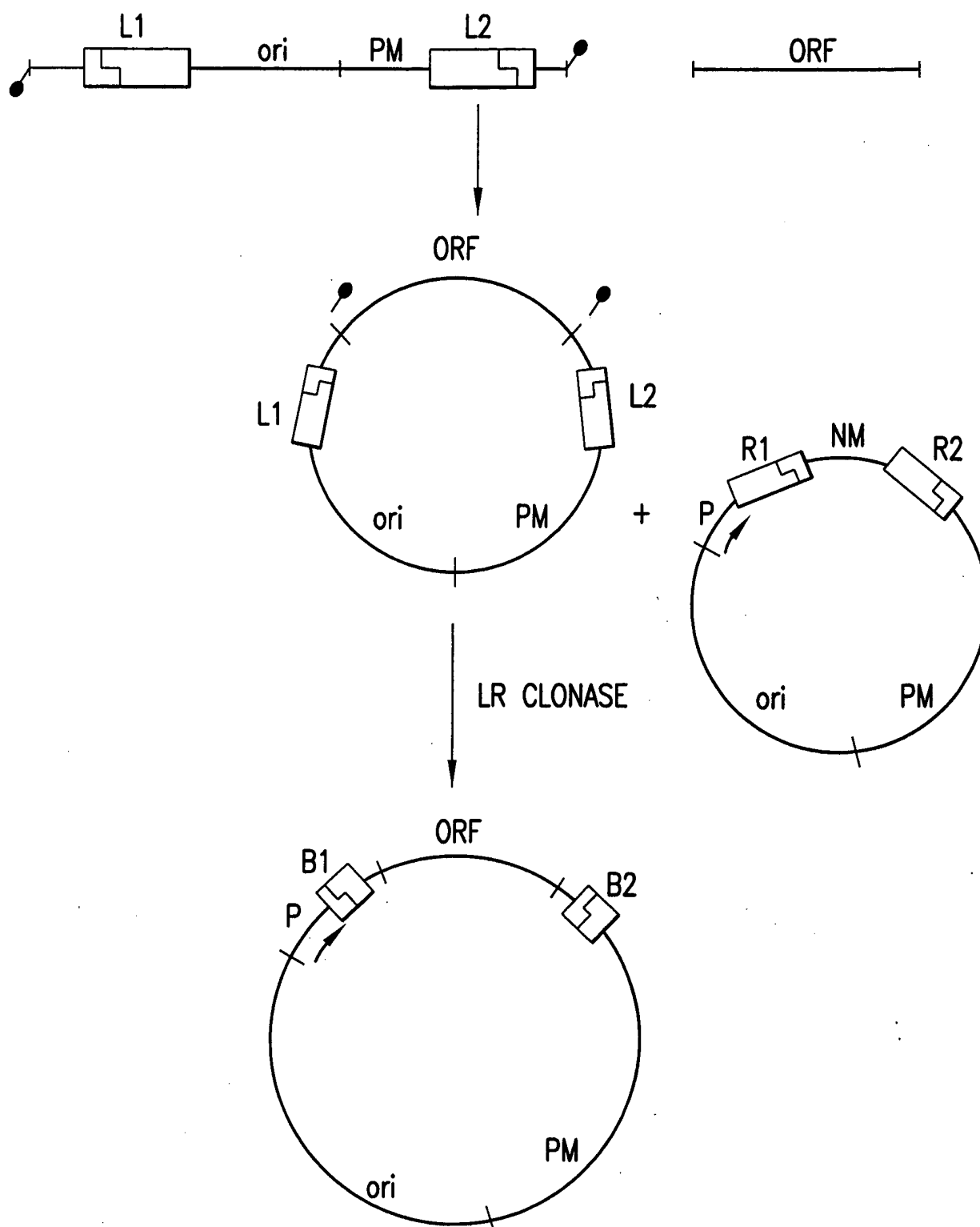


FIG. 40